

Determination of Public Land (Rangeland) Health for 65032 DAVIS

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. While habitat parameters may meet the Biotic standard, the habitat requirements for Special Status Species (lesser prairie chicken and sanddune lizard) habitat are a concern. Factors such as oil and gas activities and the associated infra-structure, the mesquite encroachment in some areas and the low composition of the tall grass species required for nesting success must continue to be addressed to improve the existing habitat and prevent loss of habitat from fragmentation.

Based on the assessments, it is my determination that the public land within the Davis allotment #65032 meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ T. R. Kreager

Assistant Field Manager

09/28/2005

Date

Standards of Public Land Health Evaluation of 65032 DAVIS Allotment [04/04/2005]

The Roswell Field Office conducted rangeland health assessments at four (4) study sites within the Davis allotment 65032. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65032-BELCHER-D004	X			X	*		N/A		
65032-N. SAMPSON-D005	X			X	*		N/A		
65032-POLK-D003	X			X	*		N/A		
65032-S. SAMPSON-D006	X			X	*		N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Davis allotment #65032. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with previous data collected on four study locations within this allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 years.

Each study site is located in a different pasture within the allotment. No livestock were observed at the time of assessment as the permittee has withdrawn from all public land within this grazing allotment. Three pastures are CP-3 Deep Sand ecological sites; Belcher, North Sampson and South Sampson respectively. Each is a (RPD) Roswell-Jalmar soil phase consisting of fine sands on high terraces occurring in the eastern part of the survey area. Slopes are 0 to 2 percent with an elevation between 3,900 ft/1,182 m and 4,100 ft/1,242 m. Belcher pasture, encompassing 1,983 acres or approximately 803

hectares rated a majority of indicators None to Slight and Slight to Moderate. The vegetation consists of grasses such as little bluestem (*Schizachyrium scoparium*), sand bluestem (*Andropogon hallii*), dropseed (*Sporobolus* spp.), gramas (*Bouteloua* spp.), shrubs, shinnery oak (*Quercus havardii*) and yucca (*Yucca* spp.). The three indicators rating Moderate are litter movement, annual production and invasive plants. Litter, mainly shinnery leaves and some grass is piling up against obstructions and collecting in depressional areas. Long-term average for production is 975 lbs/ac or kg/ha. A current estimation of 900 lbs/ac or kg/ha is approximately 50-60 percent of potential, although shinnery oak comprises most of the production for shrubs. Yucca is observed scattered throughout and poses no encroachment threat at present. A weak physical crust is acting to hold soil in place. All other indicators show minor departures and fall within normal ranges of variability. Pronghorn were observed at the time of assessment.

North Sampson pasture also rates a majority of indicators in None to Slight and Slight to Moderate. Indicators showing departures and rating Moderate were pedestals and/or terracettes, litter movement, soil surface resistance to erosion, annual production and physical crusts. The bluestem grasses exhibited obvious pedestal formations on clumps especially in flow paths where erosional processes may be more common. No terracettes were observed however. Along with this is litter displacement and gathering against obstructions and in depressional areas, most notably shinnery oak leaves. The interspace soil sample readily melts using the soil site stability test. Under canopy soil held together longer which suggests higher concentrations of organic matter. Annual production is currently estimated at 900 lbs/ac or kg/ha. so is long-term average of 919 lbs/ac or kg/ha. This is approximately 60% of potential. A very weak physical crust exists but is very sporadic.

South Sampson pasture, with 2,595 acres/1,051 hectares rates the majority of indicators None to Slight and Slight to Moderate, indicating normal ranges of variability for most attributes. Bluestem species, little and sand both make up most of the vegetative composition. In lesser amounts are hairy grama (*Bouteloua hirsuta*), dropseeds and threeawn (*Aristida* spp.). Also comprising the shrub component are shinnery oak in pockets and yucca in some areas. Soil surface resistance to erosion rates Moderate. Interspace soil samples melted quite rapidly while canopy samples were slightly slower in erosional instability. Most of the smaller areas of past wind-scoured and blowout activities have re-vegetated. The weak physical crusting and sandy nature of the soil have contributed to instability of interspace ped samples. Some mesquite and yucca were observed less than scattered.

Polk pasture with an area of 298 acres/121 hectares is the solitary Sandy Plains CP-2 ecological site, with a (FaA) Faskin soil phase. This soil occurs on high terraces in the eastern part of the survey area. The elevation is 3,800 ft/1,152 m to 4,200 ft/1,273 m on 0 to 2 percent slopes. All indicators rated None to Slight and Slight to Moderate except for invasive plants. Mesquite and yucca are scattered throughout and rates invasive plants Moderate. The shrubs do not effect production however as a current estimate of 1,000 to 1,100 lbs/ac or kg/ha matches the long-term average and deviates only slightly. Sideoats grama (*Bouteloua curtipendula*) and hairy grama can also be found in generous amounts.

Sand sage (*Artemisia filifolia*) and shinnery oak add to the shrub component. Pronghorn were also observed which indicates an adequate forb crop due to winter moisture this year. All other indicators fall within normal range of variability.

Hydrology

Belcher - The litter movement indicator rated moderate. The decrease in litter movement suggests that dry weather has a negative affect on growing conditions reducing it's amounts and mobility.

All other indicators rated none to slight and slight to moderate indicating a healthy ecological condition. Silt, sand and gravel of Quaternary eolian and piedmont deposits outcrop here.

Sampson - The pedestals and/or terracette indicator rated as moderate. The recent dry conditions in combination with wind and water erosion has possibly decreased amounts of plant cover and soil infiltration which may have increased pedestaling on plants and rocks.

The litter movement indicator rated moderate. The decrease in litter movement suggests that a lack of precipitation has negatively affected growing conditions reducing litter production and movement.

Soil surface resistance to erosion rated moderate. The soil site stability test indicates melting of interspace soil ped samples. The physical/biological crust indicator rated moderate. There was a lack of a physical soil crust in the area.

All other indicators rated none to slight and slight to moderate indicating a healthy ecological condition. Silt, sand and gravel of Quaternary eolian and piedmont deposits outcrop here.

Polk - The rills, water flow patterns, pedestals and/or terracettes, bareground, gullies, wind-scoured blowouts, and/or deposition areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount and physical/chemical/biological crusts indicators rated none to slight and slight to moderate. Sand and gravel deposits of Quaternary alluvial outcrop the area.

Sampson - Soil surface resistance to erosion rated moderate, with soil stability tests showing interspace melting. The physical/biological crust indicator rated moderate. There was a lack of physical soil crust in the area.

All other indicators rated none to slight and slight to moderate indicating a healthy ecological condition. Silt, sand and gravel of Quaternary eolian and piedmont deposits outcrop in the area. Wildlife -

Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups and plant mortality & decadence.

In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. A unique assemblage of terrestrial species and avifauna can be expected to use the Mescalero Sands ecosystem. Of significance are the lesser prairie chicken and sand dune lizard known only to occur within this ecosystem. The vegetation community of interest is the shinnery oak-tall grass type only found in this portion of the Field Office area.

Key habitat components include sand bluestem, shinnery oak, sand dune lizard habitat features (dune blowouts), and lesser prairie chicken habitat features (booming grounds & nesting areas). The amount, condition and juxtaposition of these habitat features are used as habitat indicators for this assessment.

Key attributes/indicators related to LPC habitat are Functional/Structural Groups, Annual Production, and Invasive Plants. Key attribute/indicators related to SDL habitat are Bare Ground, Wind-Scoured Blowouts, Deposition Areas and Annual Production. SDL are generally associated with blowouts that are unstabilized, i.e., microhabitats affected by the physical attributes of dunes and vegetation.

Other important wildlife species and their habitats, such as desert mule deer, pronghorn, a variety of game and non-game species, are considered in the assessment but not the focus of the evaluation. The assessment begins by determining if the site is within "Core Areas" for lesser prairie chicken, or contains potential/occupied habitat for the sand dune lizard.

This allotment has three fairly large pastures with sizable blocks of public land and a smaller pasture of mostly private land. The two pastures located below the Caprock Escarpment are North and South Samson. These two pastures are in the Mescalero Sands ecosystem. The other two pastures are to the east on upper terraces of the Caprock. All three pastures provide important habitat for LPC. It should be noted that South Samson Pasture was chemically treated in 1986, followed by North Samson in 1991. The treatments were aimed to reduce the amount of shinnery oak and increase grass production for both livestock and wildlife. Oil and gas activity has not been active in recent years. Developments are slowly rehabilitating although access routes remain used by the general public. Habitat conditions have changed over the years ranging from dense tall grass following treatment, through a large wildfire which temporarily decreased standing grasses, to drought conditions, and back to favorable precipitation periods with increased vegetation production this year. For the past ten years, below average rainfall has occurred in the area. It has been only in the past year that precipitation has occurred at opportune times for vegetative growth and wildlife population maintenance. Correspondingly, the pastures have not been stocked (non-use) during extreme drought to maintain existing desirable vegetation. For the treated pastures, shinnery oak composition

is recovering. Lek surveys results conducted over the years generally follow drought conditions. LPC counts in the past two years indicate an upward trend. Because of the biological significance of this area, past chemical treatments, oil and gas activities (past and potential), wildlife indicators are rated Moderate.

In the professional opinion of the Assessment Team, public land within Davis allotment #65032, meets Upland and Biotic standards. There are no Riparian areas present, therefore this standard was not assessed. See site notes and recommendations for additional information regarding the assessments within this allotment.

Recommendations: Further deferment of this allotment can only augment it's potential for recovery, improved health or condition and forage production. The lesser prairie chicken habitat can benefit largely from prudent monitoring and management. Continued monitoring and livestock management practices should be the protocol for this allotment. Possible future brush management may be instituted to curtail further shrub encroachment in those few areas where mesquite and sand sage are scattered.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65032-BELCHER-D004						
Legal Land Desc	NWSW 19 0080S 0320E Meridian 23		Acreage		1983	
Ecosite	070BY063NM DEEP SAND CP-2		Photo Taken		Y	
Watershed	13060007050 WHITE LAKES					
Observers	NAVARRO/ARTHUN		Observation Date		04/04/2005	
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	RPD		Soil Taxon Name		ROSWELL	
Texture Class	NM644 FS		Soil Phase		ROSWELL-JALMAR	
Texture Modifier	NM644 FINE SANDS,HILLY					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	13.06		NOAA Growing Season Precipitation		10.95	
NOAA Avg Annual Precipitation	14.14		NOAA Avg Growing Season Precipitation		11.76	
Disturbances and Animal Use:						
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	

Comments:	Current estimate is 40%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:	Infrequent and few; the far reaches of the site have some barren areas but these are minimal.					
H	Litter Movement			X		
Comments:	The shinnery leaves and some grass litter has been displaced and in some places have settled in depressional areas.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Interspace soil samples are holding together.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some horizon loss is evident, as the pebbles and gravel have migrated towards the surface in some areas.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	Only minor effects.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Only minor deviations observed.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Litter estimated at 40%.					
B	Annual Production			X		
Comments:	Current estimate is 900 lbs/ac or kg/ha, which is 50-60 percent of potential.					
B	Invasive Plants			X		
Comments:	Yucca is scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						

S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusting is observed.					
B	Wildlife Habitat				X	
Comments:	A flat shinnery oak/tall grass habitat type on sandy soils. A transition area above and on the eastern edge of Mescalero Sands dunal ecosystem. Habitat recovering from severe drought.					
B	Wildlife Populations				X	
Comments:	No specific wildlife population data at this time. The primary species of concern, other than those identified below, are pronghorn antelope, desert mule deer, upland game species and a variety of non-game wildlife species. Populations recovering as habitat recovers from severe drought.					
B	Special Status Species Habitat				X	
Comments:	Within the LPC core area. The shinnery oak/tall grass vegetation community supports species unique to the Mescalero Sands ecosystem. Lek sites are available within the pasture. There are habitat disturbances from oil and gas development. Documented lek sites do occur on abandoned oil and gas pads. Roads are fragmenting habitat. Nesting habitat appears to be a factor that can be improved, specifically tall grass species such as sand bluestem.					
B	Special Status Species Populations				X	
Comments:	LPC are known to occur in the area. Several lek sites have been documented over the years. The active leks in the pasture exhibit stable counts.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	8	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns.

Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic		0	2	11

Site Notes: This site is located just north of some deeper more sandier areas of the pasture. The bluestem component most notably the little bluestem is down somewhat, but not majorly. No livestock were observed at the time of assessment as the operator has pulled. Pronghorn were observed which suggests that the forb component may be favorable.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65032-N. SAMPSON-D005						
Legal Land Desc	SENW 23 0080S 0310E Meridian 23		Acreage		3730	
Ecosite	070BY063NM DEEP SAND CP-2		Photo Taken		Y	
Watershed	13060007050 WHITE LAKES					
Observers	NAVARRO/ARTHUN		Observation Date		04/04/2005	
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	RPD		Soil Taxon Name		ROSWELL	
Texture Class	NM644 FS		Soil Phase		ROSWELL-JALMAR	
Texture Modifier	NM644 FINE SANDS,HILLY					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	13.06		NOAA Growing Season Precipitation		10.95	
NOAA Avg Annual Precipitation	14.14		NOAA Avg Growing Season Precipitation		11.76	
Disturbances and Animal Use:						
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes			X		
Comments:	Pedestals on the bluestem species.					
S H	Bare Ground				X	

Comments:	Current estimate is 40%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement			X		
Comments:	Shinnery leaves against obstructions and in depressions.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Interspace sample readily melts.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Small rocks on surface.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Only minor reductions.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 30%.					
B	Annual Production			X		
Comments:	Current estimate is 900 lbs/ac or kg/ha. 50-60% of potential and of the ESD is the estimate.					
B	Invasive Plants				X	
Comments:	Yucca less than scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	

Comments:	Physical crusts are very weak, but still contain some organic matter.					
B	Wildlife Habitat				X	
Comments:	This is a hummocky shinnery oak/tall grass habitat type that was chemically treated in 1991 to reduce the amount of shinnery and increase grass production to benefit both livestock and wildlife, primarily improving LPC nesting habitat. Habitat conditions have changed over the years ranging from dense tall grass following treatment, through a large wildfire which temporarily decreased standing grasses, to drought conditions, and back to favorable precipitation periods with increased vegetation production this year. Because of the mosaic of treated and non-treated areas, wildlife habitat is diverse in this area.					
B	Wildlife Populations				X	
Comments:	No specific wildlife population data at this time. The primary species of concern, other than those identified below, are pronghorn antelope, desert mule deer, upland game species and a variety of non-game wildlife species that can be found in the area.					
B	Special Status Species Habitat				X	
Comments:	<p>Within the LPC core area. The shinnery oak/tall grass vegetation community supports species unique to the Mescalero Sands ecosystem. Lek sites are available within the pasture and include abandoned oil and gas pads and natural sites. Habitat disturbances from older oil and gas developments are slowly rehabilitating. Roads to the pads have fragmented habitat and allow more access to and through the area. Nesting habitat appears to be a factor that can be improved and maintained, specifically tall grass species such as sand bluestem while allowing shinnery oak to become re-established from the chemical treatment.</p> <p>The site is not within delineated SDL range although SDL may occur in unstabilized dune habitat (microhabitats) that were left out from chemical treatment for that reason.</p>					
B	Special Status Species Populations				X	
Comments:	LPC are known to occur in the area. A few lek sites have been documented over the years. North Samson does not support a high density of leks, unlike South Samson pasture. The active leks in the pasture exhibit stable counts. No specific SDL populations have been documented to date.					
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	6	3
H	Hydrologic	0	0	2	6	3
B	Biotic	0	0	1	9	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	2	9
Biotic	Biotic indicators show moderate departure but remain sufficient. Continued evaluation to ensure the biotics remain at an acceptable level is recommended. Special status species (LPC) habitat is a concern.	0	1	12

Site Notes: There are no livestock grazing this pasture as the operator has pulled all livestock from the public land on this allotment. There does appear to be evidence of past animal use as several little and sand bluestem grass plants have the hedged look. This site has more decadent clumps as it appears the grass has become rank in the center of the plant. However the majority of the grass plants are attempting to recover.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65032-POLK-D003			
Legal Land Desc	SWSW 18 0080S 0320E Meridian 23	Acreage	298
Ecosite	070BY055NM SANDY PLAINS CP-2	Photo Taken	Y
Watershed	13060007050 WHITE LAKES		
Observers	NAVARRO/ARTHUN	Observation Date	04/04/2005
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	FaA	Soil Taxon Name	FASKIN
Texture Class	NM644 LFS	Soil Phase	FASKIN
Texture Modifier	NM644 FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	13.06	NOAA Growing Season Precipitation	10.95
NOAA Avg Annual Precipitation	14.14	NOAA Avg Growing Season Precipitation	11.76
Disturbances and Animal Use:			

Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:	Pedestals on some little bluestem.					
S H	Bare Ground				X	
Comments:	Current estimate is 30%.					
S H	Gullies					X

Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:	Some displacement.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Only minor deviations.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 40%.					
B	Annual Production				X	
Comments:	1000 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants			X		
Comments:	Mesquite and yucca is scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts are holding the soil in place.					
B	Wildlife Habitat				X	
Comments:	A flat shinnery oak/tall grass habitat type on sandy soils. A transition area					

	above and on the eastern edge of Mescalero Sands dunal ecosystem. Habitat recovering from severe drought.					
B	Wildlife Populations				X	
Comments:	No specific wildlife population data at this time. The primary species of concern are pronghorn antelope, desert mule deer, upland game species and a variety of non-game wildlife species. Populations recovering as habitat recovers from severe drought.					
B	Special Status Species Habitat				X	
Comments:	Within the LPC core area. No lek sites have been documented to date but sites are available within the pasture. There are habitat disturbances from oil and gas development. No habitat for SDL.					
B	Special Status Species Populations				X	
Comments:	None known to occur.					
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	6	4
H	Hydrologic	0	0	0	8	3
B	Biotic	0	0	1	9	3
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i> , and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.						
Attribute	Rationale	Does Not		May	Meets	

		Meet	Need More Info	
Soil		0	0	10
Hydrologic		0	0	11
Biotic	<p>Biotic indicators show moderate departure but remain sufficient. Continued evaluation to ensure the biotics remain at an acceptable level is recommended.</p> <p>Special status species (LPC) habitat is a concern.</p>	0	1	12
<p>Site Notes: No livestock are in this pasture as well as the allotment. Pronghorn observed which suggests a good forb component. Forbs were observed on site. Sand sage is more abundant here along with sideoats grama.</p>				

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65032-S. SAMPSON-D006						
Legal Land Desc	SWNW 35 0080S 0310E Meridian 23		Acreage		2595	
Ecosite	070BY063NM DEEP SAND CP-2		Photo Taken		Y	
Watershed	13060007050 WHITE LAKES					
Observers	NAVARRO/ARTHUN		Observation Date		04/04/2005	
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	RPD		Soil Taxon Name		ROSWELL	
Texture Class	NM644 FS		Soil Phase		ROSWELL-JALMAR	
Texture Modifier	NM644 FINE SANDS,HILLY					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	13.06		NOAA Growing Season Precipitation		10.95	
NOAA Avg Annual Precipitation	14.14		NOAA Avg Growing Season Precipitation		11.76	
Disturbances and Animal Use:						
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	

Comments:	Current estimate is 30%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:	Past wind-scoured areas are in the process of vegetating over.					
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:	Interspace sample of soil melts readily.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Estimates are approximately 30%.					
B	Annual Production				X	
Comments:	900-1000 lbs/ac or kg/ha is the estimate.					
B	Invasive Plants				X	
Comments:	Mesquite and yucca is less than scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts			X		
Comments:	A very weak physical crust exists and is not fairly uniform.					

B	Wildlife Habitat				X	
Comments:	This is a hummocky shinnery oak/tall grass habitat type that was chemically treated in 1986 to reduce the amount of shinnery and increase grass production to benefit both livestock and wildlife, primarily improving LPC nesting habitat. Habitat conditions have changed over the years ranging from dense tall grass following treatment, through a large wildfire which temporarily decreased standing grasses, to drought conditions, and back to favorable precipitation periods with increased vegetation production this year. Because of the mosaic of treated and non-treated areas, wildlife habitat is diverse in this area.					
B	Wildlife Populations				X	
Comments:	No specific wildlife population data at this time. The primary species of concern, other than those identified below, are pronghorn antelope, desert mule deer, upland game species and a variety of non-game wildlife species that are found in the area.					
B	Special Status Species Habitat				X	
Comments:	<p>Within the LPC core area. The shinnery oak/tall grass vegetation community supports species unique to the Mescalero Sands ecosystem. Lek sites are available within the pasture and include abandoned oil and gas pads and natural sites. Habitat disturbances from older oil and gas developments are slowly rehabilitating. Roads to the pads have fragmented habitat and allow more access to and through the area. Nesting habitat appears to be a factor that can be improved and maintained, specifically tall grass species such as sand bluestem while allowing shinnery oak to become re-established from the chemical treatment.</p> <p>The site is not within delineated SDL range although SDL may occur in unstabilized dune habitat (microhabitats) that were left out from chemical treatment for that reason.</p>					
B	Special Status Species Populations				X	
Comments:	LPC are known to occur in the area. Several lek sites have been documented over the years. South Samson supports a high density of leks, unlike North Samson pasture. The active leks in the pasture exhibit a stable to slightly upward count this year. No specific SDL populations have been documented to date.					
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	5	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	1	9	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	1	10
Biotic	Biotic indicators show moderate departure but remain sufficient. Continued evaluation to ensure the biotics remain at an acceptable level is recommended. Special status species (LPC) habitat is a concern.	0	1	12

Site Notes: No livestock were observed as the operator has taken his animals off the public land within this allotment. Little bluestem is quite abundant along with sand bluestem. Shinnery oak can be found in pockets. Production is mainly the bluestem component with dropseed in lesser am

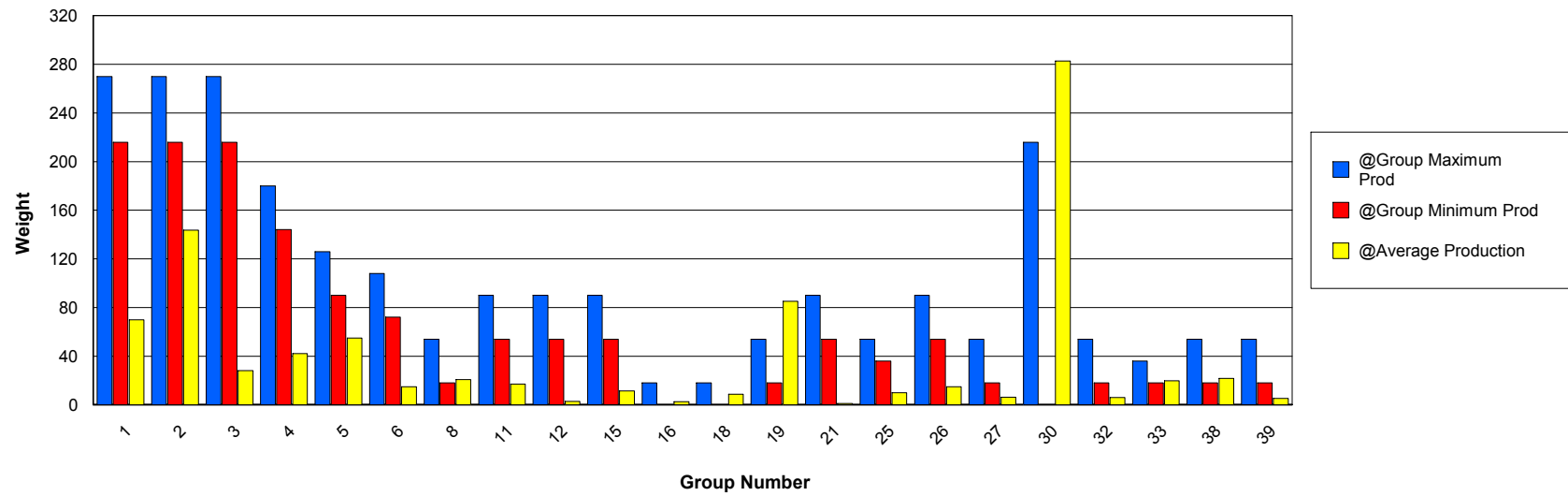
Functional / Structural Groups

Report Parameters

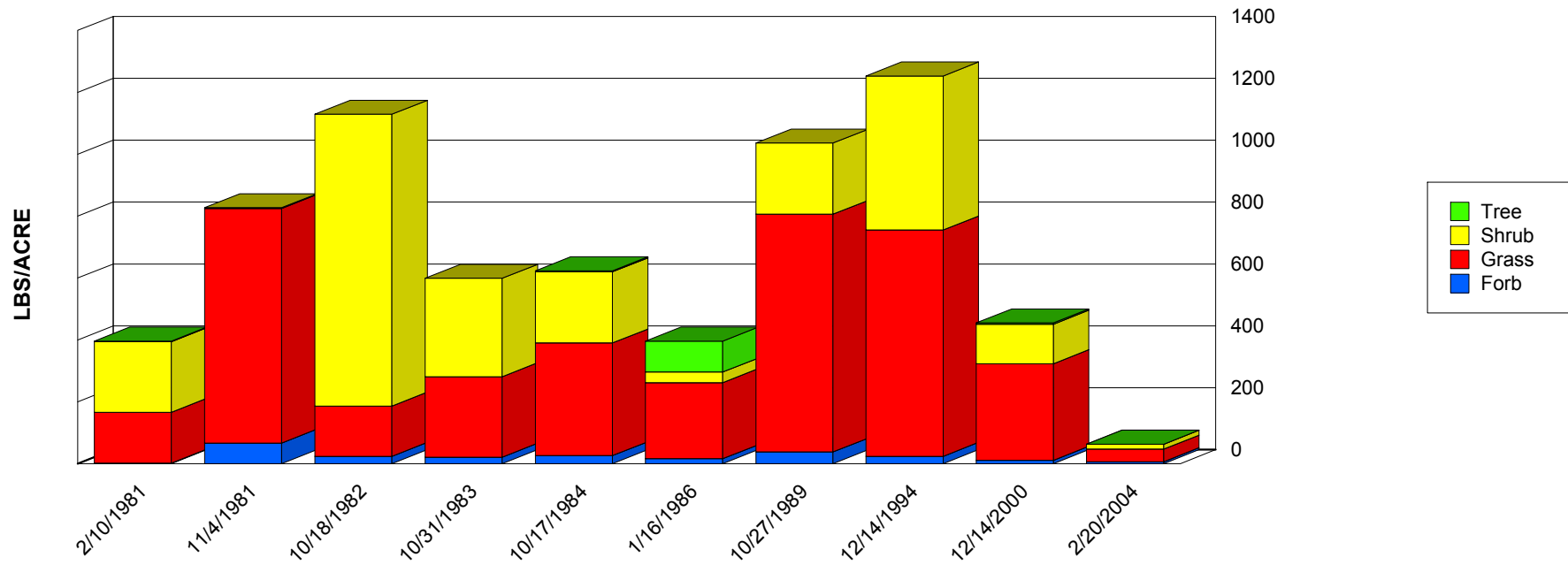
SITE NAME LIKE 65032-BELCHER-D004
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004
 MIN LBS TO GRAPH 1
 SELECTED ECOSITE 070BY063NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	ANHA	216	270	5.33	164.00	69.93	53.01
2	Grass	ANSC2	216	270	0.00	538.00	143.66	170.13
3	Grass	SPCR	216	270	3.80	27.00	12.47	7.71
3	Grass	SPFL2	216	270	10.00	21.00	15.50	5.50
4	Grass	BOHI2	144	180	0.00	131.00	41.99	40.12
5	Grass	ARIST	90	126	0.00	128.00	46.90	35.94
5	Grass	ARLO3	90	126	0.00	16.00	8.00	8.00
6	Grass	PAST6	72	108	0.00	53.00	14.88	17.36
8	Grass	LECO	18	54	0.63	46.00	13.63	14.41
8	Grass	PAHA	18	54	0.00	14.00	7.00	7.00
11	Grass	BOCU	54	90	2.00	41.00	16.97	14.02
12	Grass	BOER4	54	90	2.00	5.00	2.85	1.14
15	Grass	EROX	54	90	1.29	34.00	11.47	10.61
16	Grass	ERSE2	0	18	2.00	3.00	2.50	0.50
18	Grass	CAREX	0	18	2.00	21.00	8.67	8.73
19	Grass	AGSM	18	54	0.00	15.00	7.50	7.50
19	Grass	ANGE	18	54	0.00	71.00	35.50	35.50
19	Grass	BOGR2	18	54	0.00	60.00	30.00	30.00
19	Grass	LYPH	18	54	7.00	16.00	11.50	4.50
19	Grass	STCO4	18	54	0.00	1.00	0.50	0.50
21	Forb	ERIOG	54	90	1.00	1.00	1.00	0.00
25	Forb	AMBRO	36	54	1.00	15.00	8.00	7.00
25	Forb	AMPS	36	54	0.57	3.00	1.79	1.22
26	Forb	AAFF	54	90	0.00	38.00	14.90	12.91
27	Forb	CRJA2	18	54	3.33	9.00	6.17	2.84
27	Forb	HYSC	18	54	0.00	0.00	0.00	0.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
30	Shrub	QUHA3	0	216	15.18	934.00	282.80	263.72
32	Shrub	GUSA2	18	54	3.00	9.00	6.00	3.00
33	Shrub	YUGL	18	36	0.67	39.00	19.84	19.17
38	Tree	YUEL	18	54	0.00	100.00	21.80	39.12
39	Shrub	OPUNT	18	54	0.00	17.00	5.25	6.83



Production Lbs/Acre Trends

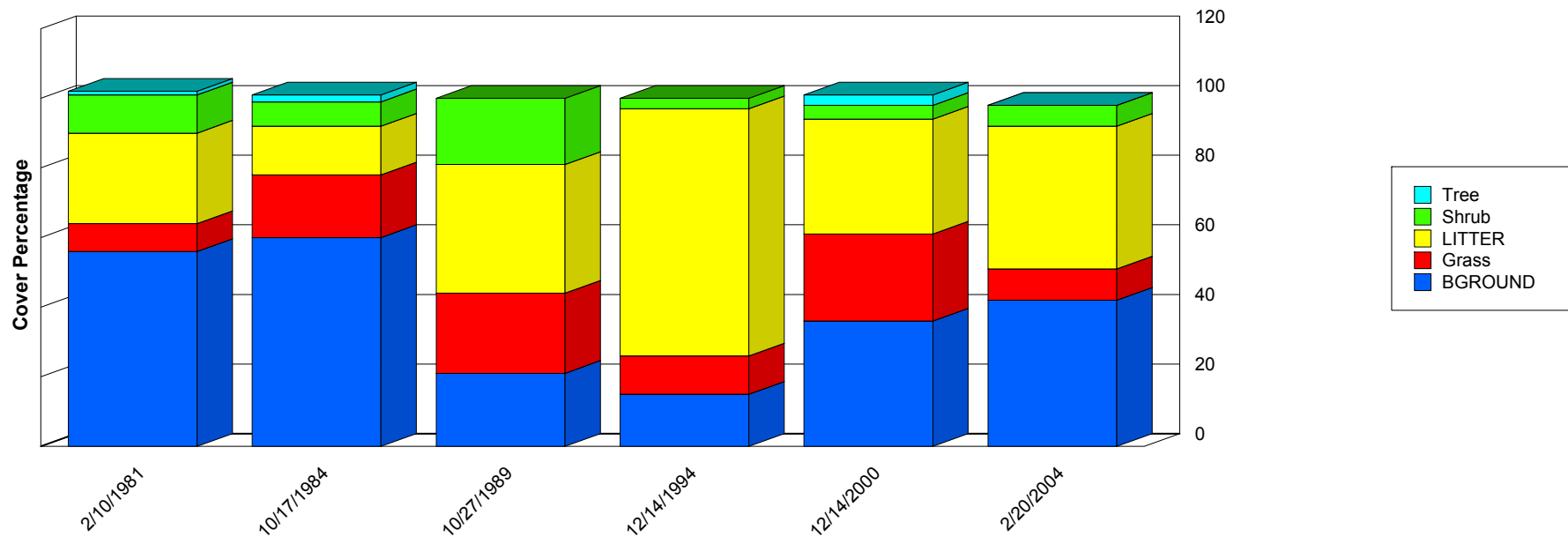


	2/10/1981	1/14/1981	10/18/1982	10/31/1983	10/17/1984	1/16/1986	10/27/1989	12/14/1994	12/14/2000	2/20/2004
Forb	2.00	67.00	24.00	21.00	26.00	16.00	38.00	24.00	11.00	6.49
Grass	164.00	758.00	162.00	260.00	364.00	246.00	768.00	731.00	312.00	40.57
Shrub	228.00	2.00	943.00	318.00	230.00	34.00	230.00	498.00	128.00	15.85
Tree	2.00	0.00	0.00	0.00	3.00	100.00	0.00	0.00	4.00	0.00
Total	396.00	827.00	1,129.00	599.00	623.00	396.00	1,036.00	1,253.00	455.00	62.91

Report Parameters

SITE NAME LIKE 65032-BELCHER-D004
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004

Ground Cover Trends



	2/10/1981	10/17/1984	10/27/1989	12/14/1994	12/14/2000	2/20/2004
BGROUND	56.00	60.00	21.00	15.00	36.00	42.00
Grass	8.00	18.00	23.00	11.00	25.00	9.00
LITTER	26.00	14.00	37.00	71.00	33.00	41.00
Shrub	11.00	7.00	19.00	3.00	4.00	6.00
Tree	1.00	2.00	0.00	0.00	3.00	0.00
Total	102.00	101.00	100.00	100.00	101.00	98.00

Report Parameters

SITE NAME LIKE	65032-BELCHER-D004
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2004

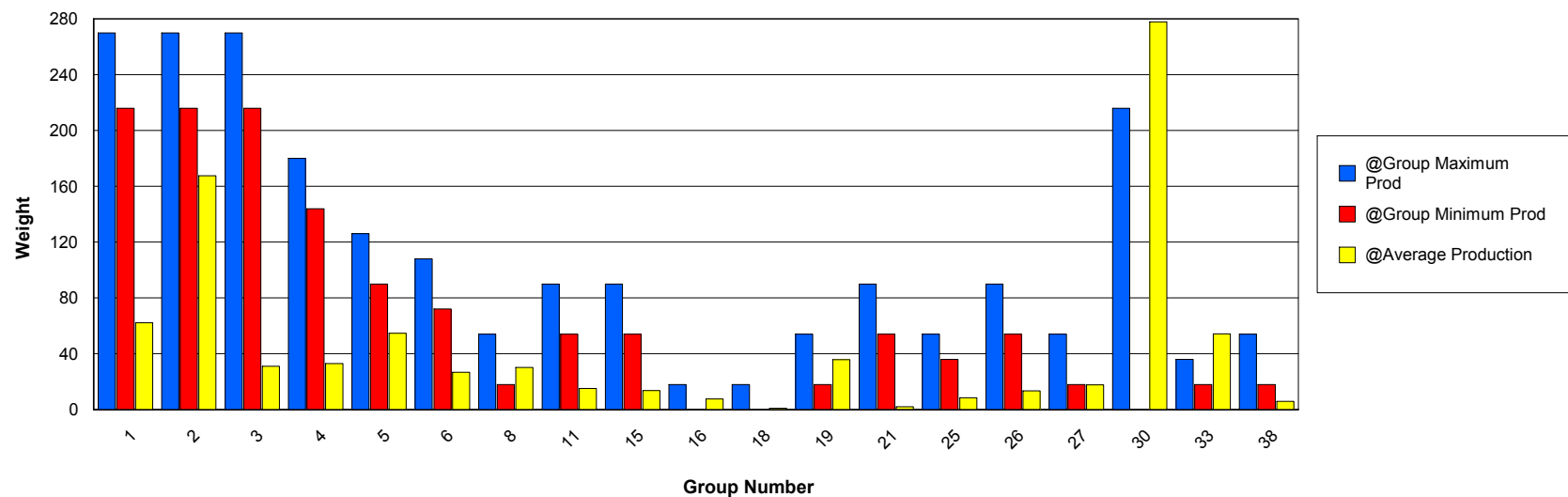
Functional / Structural Groups

Report Parameters

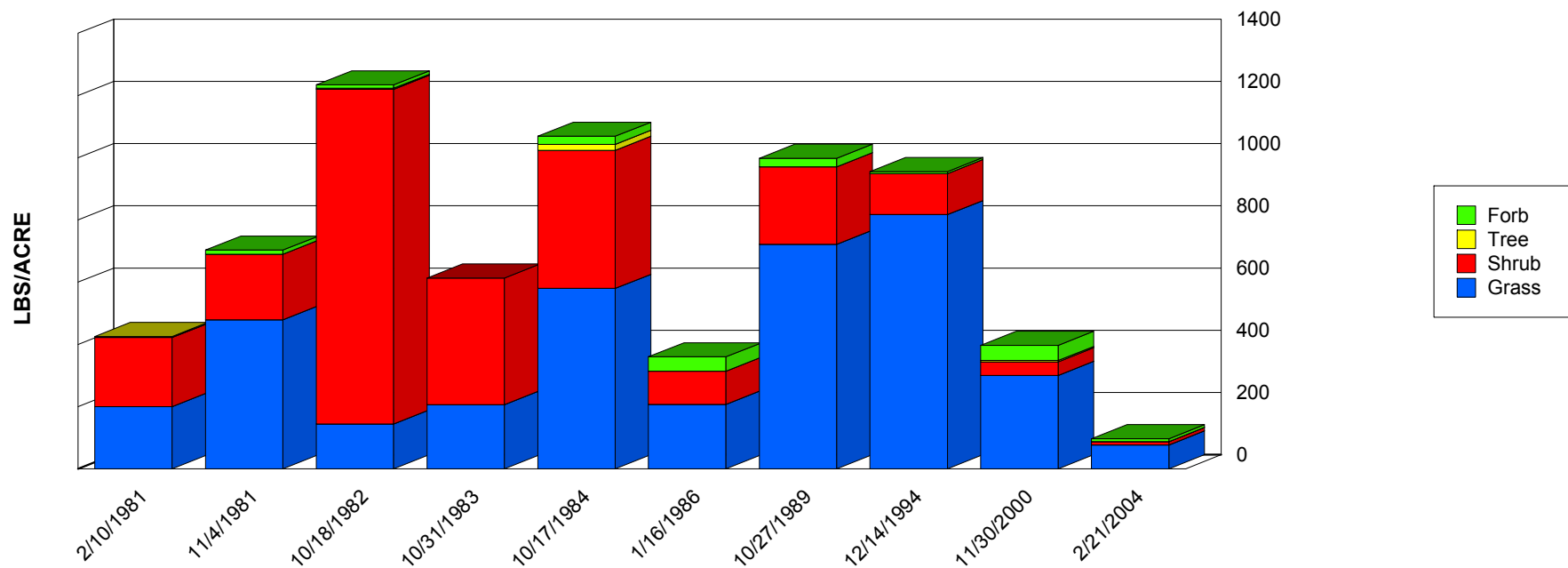
SITE NAME LIKE 65032-N. SAMPSON-D005
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004
 MIN LBS TO GRAPH 1
 SELECTED ECOSITE 070BY063NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	ANHA	216	270	0.00	167.00	62.13	56.34
2	Grass	ANSC2	216	270	9.24	518.00	167.52	166.34
3	Grass	SPCR	216	270	2.00	20.00	8.50	6.14
3	Grass	SPFL2	216	270	19.00	26.00	22.50	3.50
4	Grass	BOHI2	144	180	3.80	99.00	32.98	29.08
5	Grass	ARIST	90	126	0.00	95.00	35.70	33.54
5	Grass	ARLO3	90	126	0.00	38.00	19.00	19.00
6	Grass	PAST6	72	108	0.00	141.00	26.71	47.01
8	Grass	LECO	18	54	4.00	136.00	28.26	42.34
8	Grass	PAHA	18	54	0.00	4.00	2.00	2.00
11	Grass	BOCU	54	90	0.65	38.00	15.09	12.31
15	Grass	EROX	54	90	0.65	39.00	13.58	12.39
16	Grass	ERSE2	0	18	3.00	12.00	7.50	4.50
18	Grass	CAPR5	0	18	0.00	0.00	0.00	0.00
18	Grass	CAREX	0	18	0.00	3.00	1.00	1.22
19	Grass	AGSM	18	54	0.00	9.00	4.50	4.50
19	Grass	ANGE	18	54	0.00	72.00	27.67	31.67
19	Grass	MUAR	18	54	0.00	7.00	3.50	3.50
21	Forb	ERIOG	54	90	1.00	3.00	2.00	1.00
25	Forb	AMPS	36	54	1.15	15.00	8.38	5.67
26	Forb	AAFF	54	90	0.41	46.00	10.93	15.59
26	Forb	EUPHO	54	90	2.00	3.00	2.50	0.50
27	Forb	HYSC	18	54	0.00	31.00	15.50	15.50
27	Forb	PPFF	18	54	0.57	4.00	2.29	1.72
30	Shrub	QUHA3	0	216	7.26	1,076.00	277.93	302.06
33	Shrub	YUGL	18	36	3.33	105.00	54.17	50.84

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
38	Tree	YUEL	18	54	0.00	19.00	5.80	6.73



Production Lbs/Acre Trends

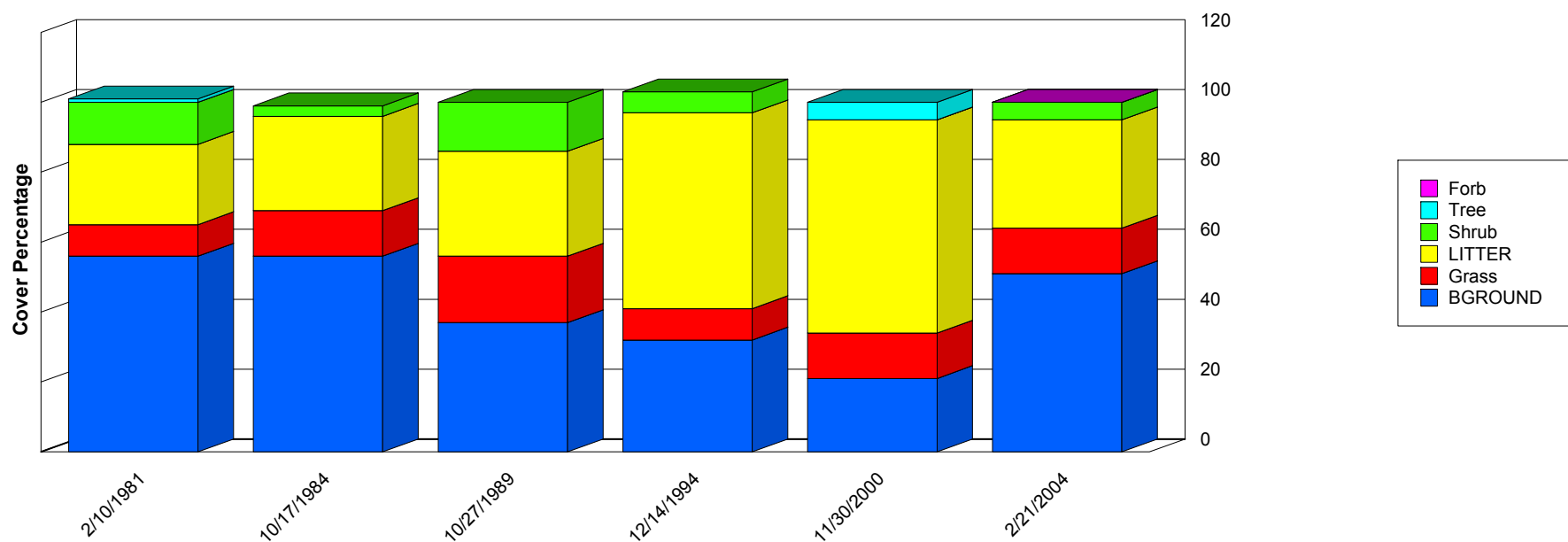


	2/10/1981	11/4/1981	10/18/1982	10/31/1983	10/17/1984	1/16/1986	10/27/1989	12/14/1994	11/30/2000	2/21/2004
Forb	0.00	13.00	11.00	0.00	26.00	46.00	27.00	6.00	49.00	9.22
Grass	200.00	479.00	144.00	206.00	580.00	207.00	722.00	817.00	300.00	77.02
Shrub	222.00	211.00	1,076.00	407.00	444.00	107.00	249.00	132.00	44.00	10.59
Tree	3.00	0.00	3.00	0.00	19.00	0.00	0.00	0.00	4.00	0.00
Total	425.00	703.00	1,234.00	613.00	1,069.00	360.00	998.00	955.00	397.00	96.83

Report Parameters

SITE NAME LIKE 65032-N. SAMPSON-D005
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004

Ground Cover Trends



	2/10/1981	10/17/1984	10/27/1989	12/14/1994	11/30/2000	2/21/2004
BGROUND	56.00	56.00	37.00	32.00	21.00	51.00
Forb	0.00	0.00	0.00	0.00	0.00	0.00
Grass	9.00	13.00	19.00	9.00	13.00	13.00
LITTER	23.00	27.00	30.00	56.00	61.00	31.00
Shrub	12.00	3.00	14.00	6.00	0.00	5.00
Tree	1.00	0.00	0.00	0.00	5.00	0.00
Total	101.00	99.00	100.00	103.00	100.00	100.00

Report Parameters

SITE NAME LIKE	65032-N. SAMPSON-D005
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2004

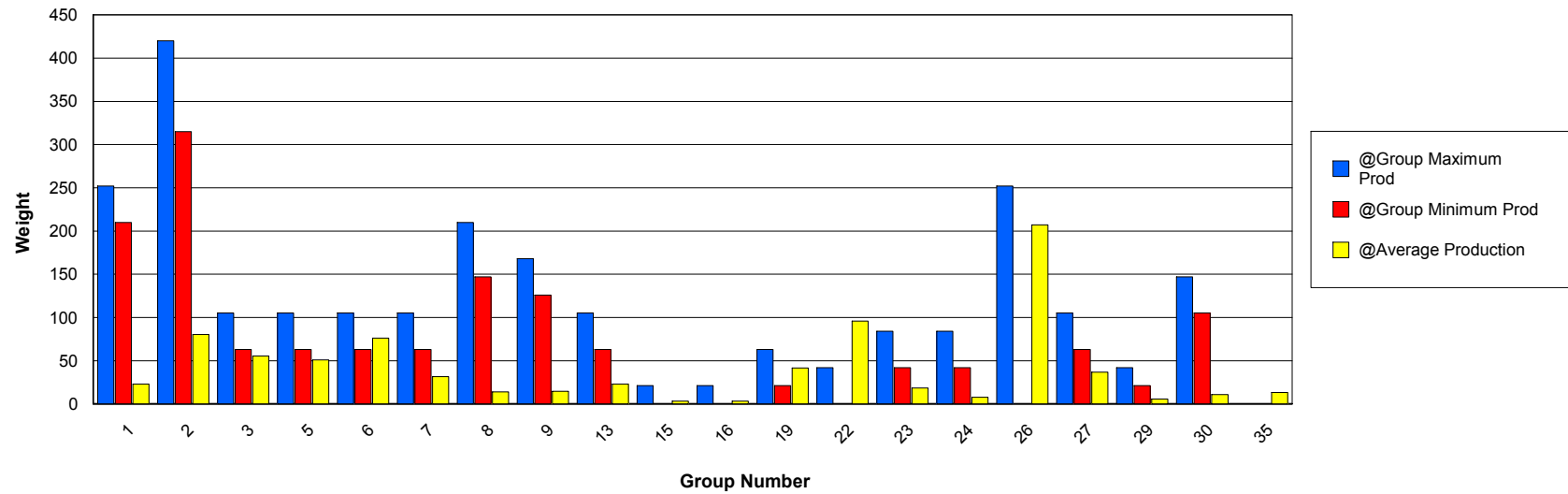
Functional / Structural Groups

Report Parameters

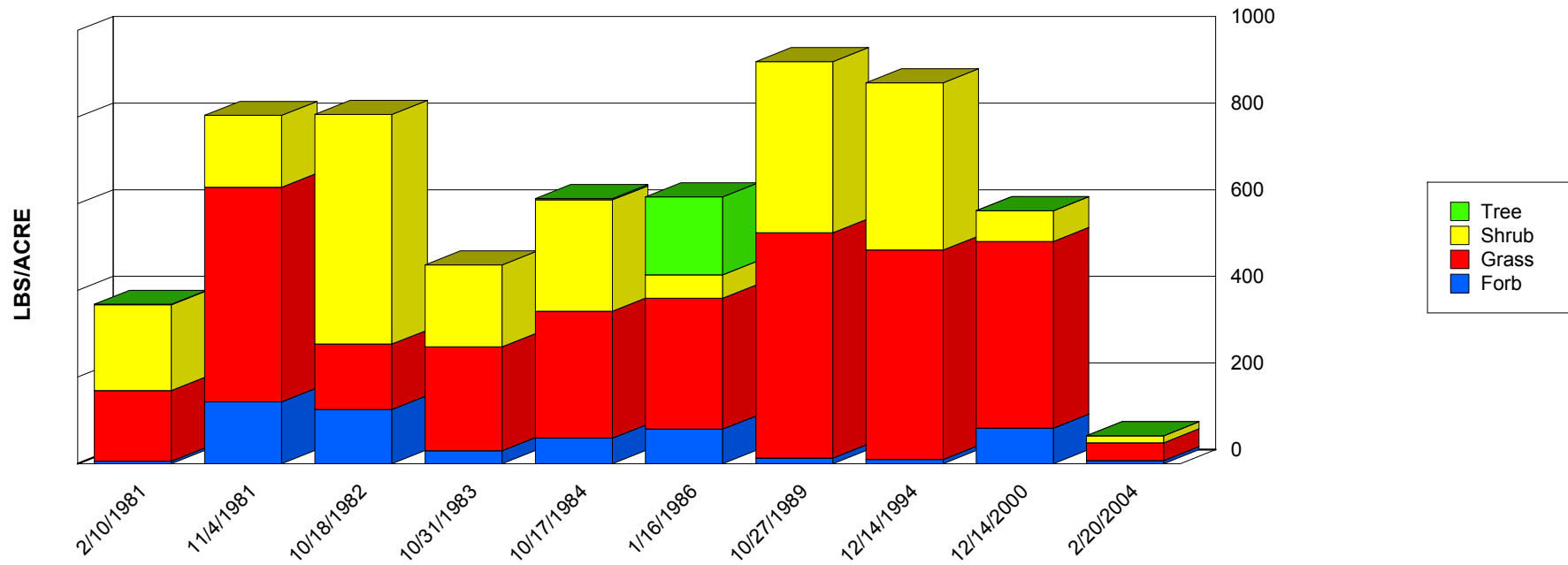
SITE NAME LIKE 65032-POLK-D003
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004
 MIN LBS TO GRAPH 1
 SELECTED ECOSITE 070BY055NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	ANHA	210	252	6.00	48.00	22.93	14.60
2	Grass	ANGE	315	420	0.00	42.00	21.00	21.00
2	Grass	ANSC2	315	420	0.00	290.00	59.29	85.84
3	Grass	EROX	63	105	0.00	64.00	29.75	20.02
3	Grass	PAST6	63	105	0.00	65.00	25.71	20.73
5	Grass	BOHI2	63	105	2.00	151.00	50.79	45.80
6	Grass	ARIST	63	105	0.00	95.00	58.20	34.22
6	Grass	ARLO3	63	105	0.00	36.00	18.00	18.00
7	Grass	LECO	63	105	6.33	102.00	31.37	27.31
8	Grass	SPCR	147	210	0.00	29.00	13.89	10.68
9	Grass	STCO4	126	168	0.00	29.00	14.50	14.50
13	Grass	BOCU	63	105	0.65	53.00	22.77	13.17
15	Grass	CEPA7	0	21	0.00	8.00	3.33	3.43
16	Grass	CAREX	0	21	2.00	6.00	3.33	1.89
19	Grass	AGSM	21	63	0.00	17.00	8.50	8.50
19	Grass	BOGR2	21	63	0.00	16.00	8.00	8.00
19	Grass	ERSE2	21	63	2.00	9.00	5.50	3.50
19	Grass	PAHA	21	63	0.00	3.00	1.00	1.41
19	Grass	SPFL2	21	63	11.00	29.00	18.67	7.59
22	Forb	AMBRO	0	42	3.00	116.00	59.50	56.50
22	Forb	AMPS	0	42	0.00	63.00	36.33	26.61
23	Forb	AAFF	42	84	0.41	80.00	18.34	22.84
24	Forb	CRJA2	42	84	0.33	14.00	7.17	6.84
24	Forb	HASP2	42	84	0.00	1.00	0.50	0.50
26	Shrub	QUHA3	0	252	13.86	524.00	207.29	161.61
27	Tree	YUEL	63	105	0.00	180.00	36.80	71.61

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
29	Shrub	GUSA2	21	42	0.47	11.00	5.74	5.27
30	Shrub	ARFI2	105	147	0.00	30.00	10.67	8.74
35	Shrub	PRGL2	0	0	0.67	36.00	13.13	13.11



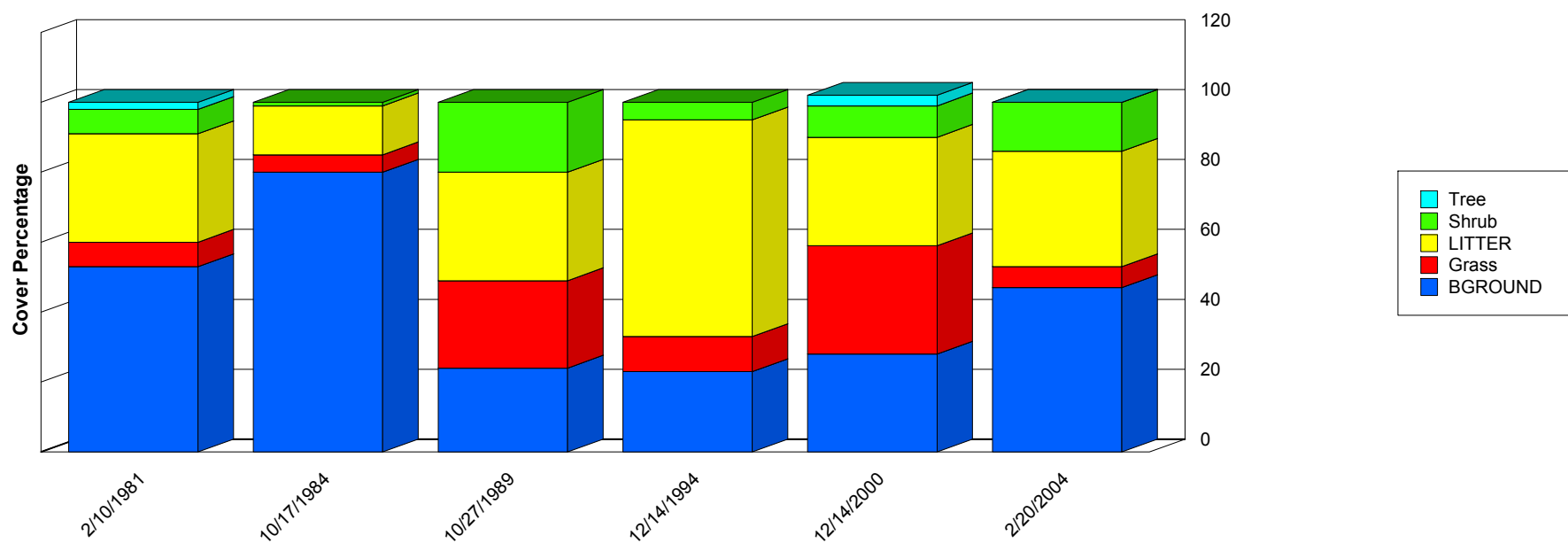
Production Lbs/Acre Trends



Report Parameters

SITE NAME LIKE 65032-POLK-D003
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004

Ground Cover Trends



	2/10/1981	10/17/1984	10/27/1989	12/14/1994	12/14/2000	2/20/2004
BGROUND	53.00	80.00	24.00	23.00	28.00	47.00
Grass	7.00	5.00	25.00	10.00	31.00	6.00
LITTER	31.00	14.00	31.00	62.00	31.00	33.00
Shrub	7.00	1.00	20.00	5.00	9.00	14.00
Tree	2.00	0.00	0.00	0.00	3.00	0.00
Total	100.00	100.00	100.00	100.00	102.00	100.00

Report Parameters

SITE NAME LIKE	65032-POLK-D003
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2004

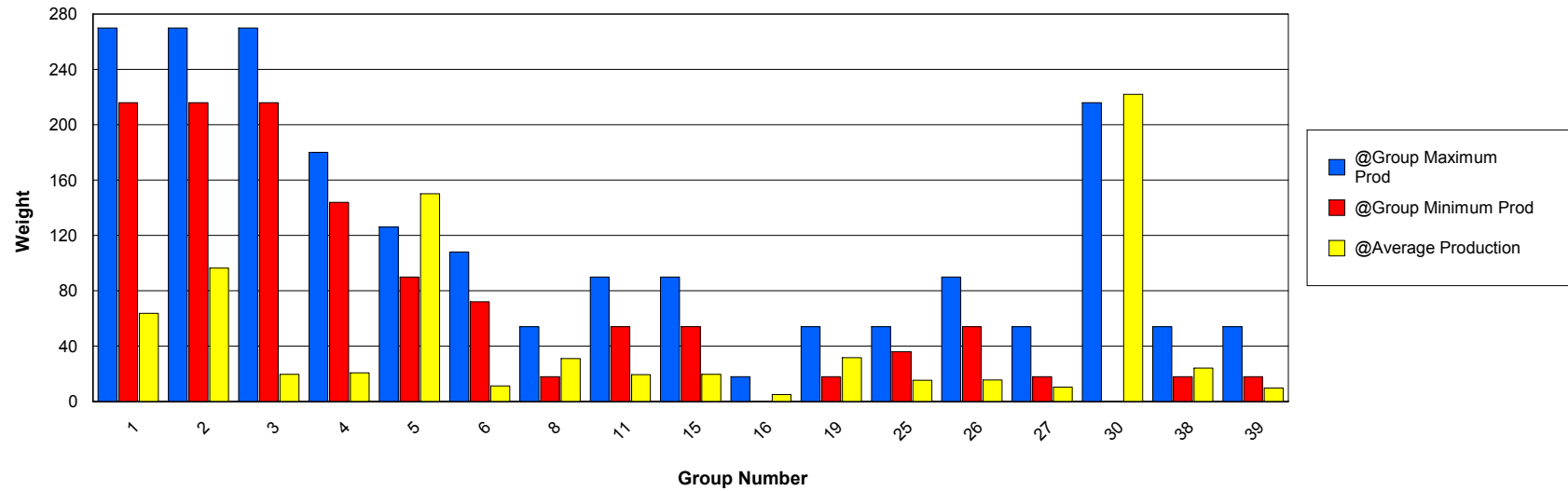
Functional / Structural Groups

Report Parameters

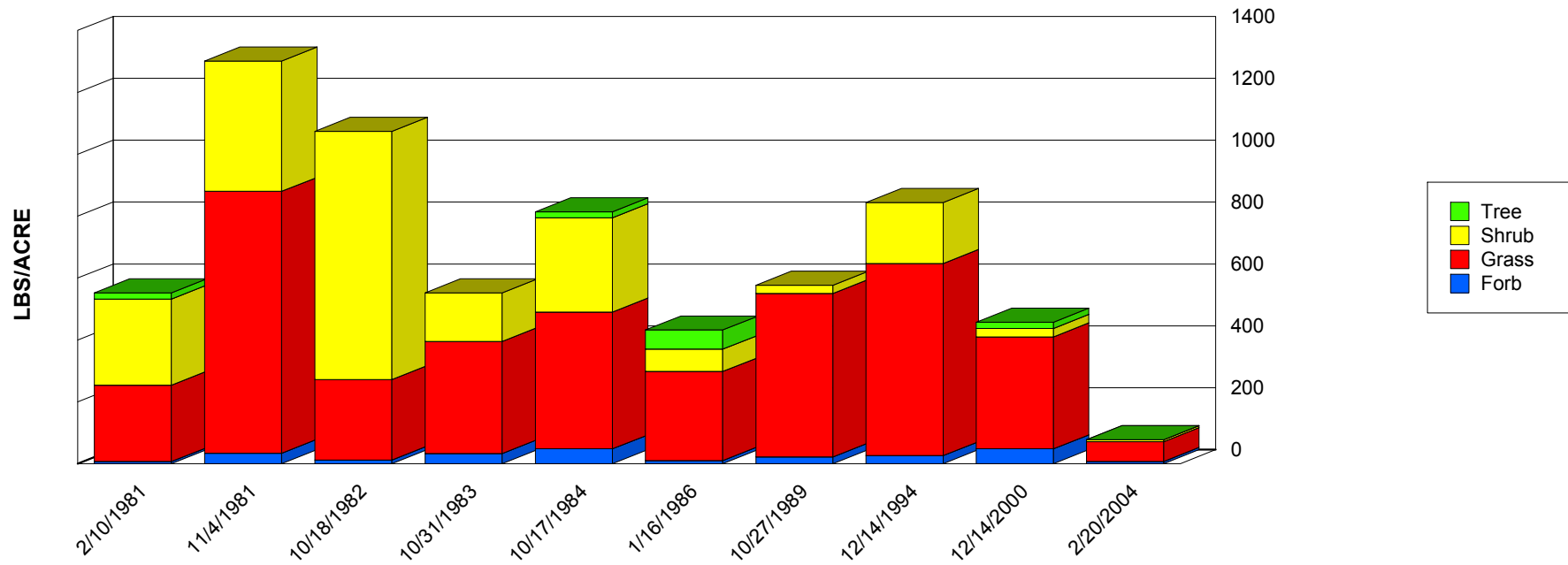
SITE NAME LIKE 65032-S. SAMPSON-D006
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004
 MIN LBS TO GRAPH 5
 SELECTED ECOSITE 070BY063NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	ANHA	216	270	3.80	162.00	63.81	56.07
2	Grass	ANSC2	216	270	0.00	211.00	96.40	65.29
3	Grass	SPCR	216	270	0.00	22.00	11.20	6.92
3	Grass	SPFL2	216	270	0.00	27.20	8.36	11.17
4	Grass	BOHI2	144	180	1.33	55.15	20.77	15.06
5	Grass	ARIST	90	126	0.00	558.48	130.12	150.01
5	Grass	ARLO3	90	126	0.00	40.04	20.02	20.02
6	Grass	PAST6	72	108	0.00	27.00	11.19	9.46
8	Grass	LECO	18	54	0.00	66.22	25.95	18.34
8	Grass	PAHA	18	54	4.43	5.76	5.10	0.66
11	Grass	BOCU	54	90	2.59	56.00	19.35	14.47
15	Grass	EROX	54	90	0.00	29.00	19.71	10.61
16	Grass	ERSE2	0	18	1.22	9.00	5.11	3.89
18	Grass	CAREX	0	18	1.42	9.94	4.24	2.97
19	Grass	AGSM	18	54	0.00	3.80	1.90	1.90
19	Grass	ANGE	18	54	0.00	59.45	29.73	29.73
21	Forb	ERIOG	54	90	2.00	7.00	4.50	2.50
25	Forb	AMPS	36	54	2.29	27.77	15.35	10.41
26	Forb	AAFF	54	90	0.83	29.04	12.53	8.77
26	Forb	DIWI	54	90	1.00	4.92	2.96	1.96
27	Forb	CRJA2	18	54	0.00	5.13	2.57	2.57
27	Forb	HYSC	18	54	0.00	6.86	3.43	3.43
27	Forb	MELE2	18	54	4.40	4.50	4.45	0.05
30	Shrub	QUHA3	0	216	4.62	801.36	221.97	234.51
31	Shrub	ARFI2	126	162	0.00	3.84	1.92	1.92
38	Tree	YUEL	18	54	0.00	62.00	24.20	20.38

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
39	Shrub	PPSS	18	54	0.00	20.00	9.75	9.76



Production Lbs/Acre Trends

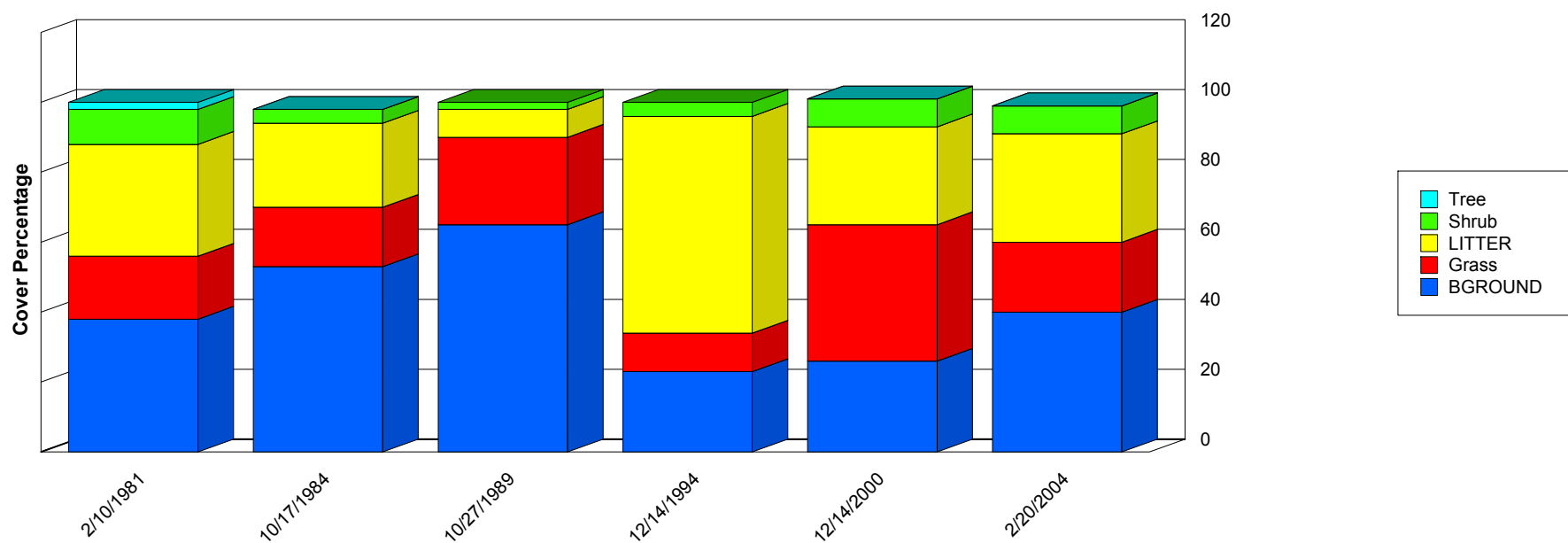


	2/10/1981	11/4/1981	10/18/1982	10/31/1983	10/17/1984	1/16/1986	10/27/1989	12/14/1994	12/14/2000	2/20/2004
Forb	7.00	34.00	12.00	33.00	48.00	10.00	22.00	26.00	48.00	7.65
Grass	247.00	846.00	260.00	362.00	442.00	288.00	528.00	621.00	362.00	63.73
Shrub	278.00	421.00	802.00	157.00	305.00	72.00	27.00	197.00	27.00	5.96
Tree	20.00	0.00	0.00	0.00	19.00	62.00	0.00	0.00	20.00	0.00
Total	552.00	1,301.00	1,074.00	552.00	814.00	432.00	577.00	844.00	457.00	77.34

Report Parameters

SITE NAME LIKE 65032-S. SAMPSON-D006
 ON/AFTER 10/01/1980
 ON/BEFORE 09/30/2004

Ground Cover Trends



	2/10/1981	10/17/1984	10/27/1989	12/14/1994	12/14/2000	2/20/2004
BGROUND	38.00	53.00	65.00	23.00	26.00	40.00
Grass	18.00	17.00	25.00	11.00	39.00	20.00
LITTER	32.00	24.00	8.00	62.00	28.00	31.00
Shrub	10.00	4.00	2.00	4.00	8.00	8.00
Tree	2.00	0.00	0.00	0.00	0.00	0.00
Total	100.00	98.00	100.00	100.00	101.00	99.00

Report Parameters

SITE NAME LIKE	65032-S. SAMPSON-D006
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2004

Robel Pole Summary over Time Report

Report Parameters

SITE NAME LIKE 65032-BELCHER-D004

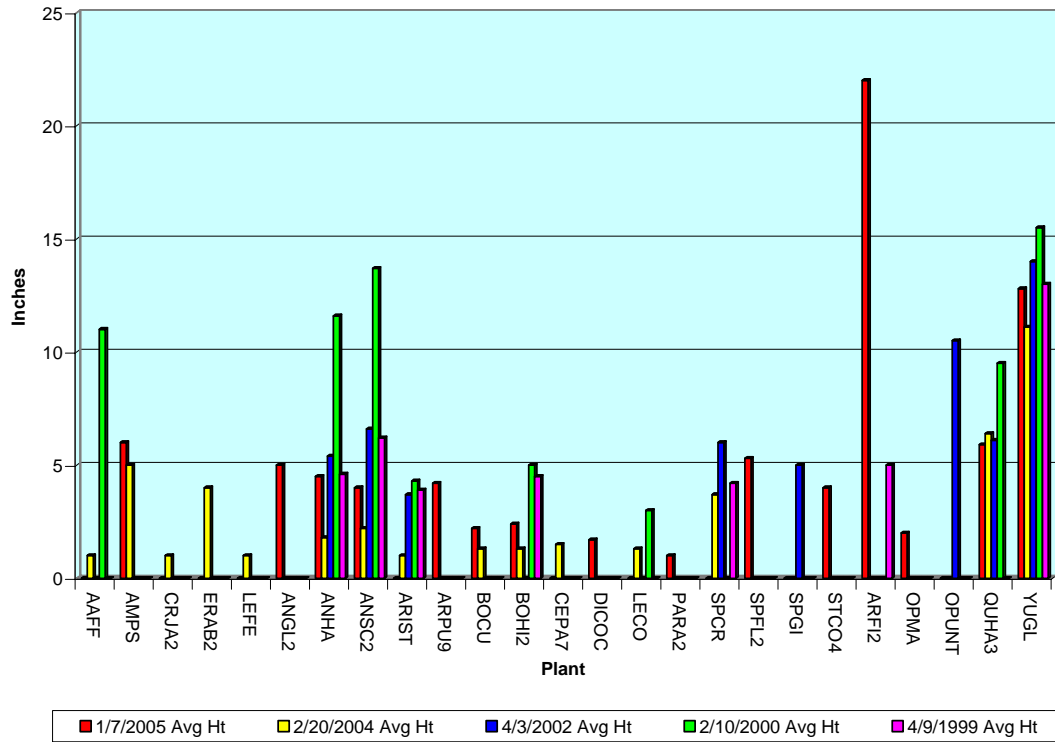
ON/AFTER 01/01/1999

ON/BEFORE 12/31/2005

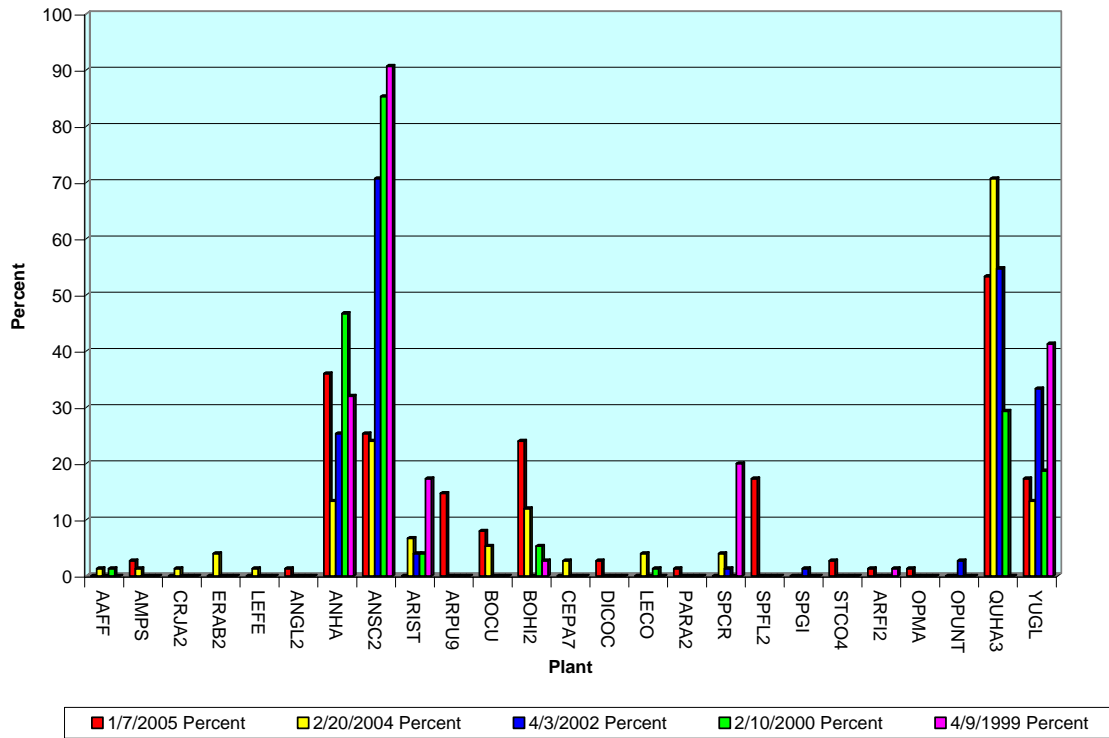
Primary Obstructions	65032-BELCHER-D004	65032-BELCHER-D004	65032-BELCHER-D004	65032-BELCHER-D004	65032-BELCHER-D004
	01/07/2005	02/20/2004	04/03/2002	02/10/2000	04/09/1999
Flag Stations	1	1	1	20	0
	% Hits	% Hits	% Hits	% Hits	% Hits
BGROUND	22.7 %	42.7 %	48.0 %	25.3 %	36.0 %
LITTER	46.7 %	40.0 %	49.3 %	40.0 %	44.0 %
OPMA	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
QUHA3	2.7 %	5.3 %	0.0 %	0.0 %	0.0 %
YUGL	1.3 %	1.3 %	0.0 %	2.7 %	0.0 %
ANGL2	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
ANHA	8.0 %	1.3 %	1.3 %	10.7 %	4.0 %
ANSC2	2.7 %	4.0 %	1.3 %	20.0 %	13.3 %
ARPU9	2.7 %	0.0 %	0.0 %	0.0 %	0.0 %
BOCU	2.7 %	0.0 %	0.0 %	0.0 %	0.0 %
BOHI2	2.7 %	2.7 %	0.0 %	1.3 %	0.0 %
DICOC	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
LECO	0.0 %	2.7 %	0.0 %	0.0 %	0.0 %
SPCR	0.0 %	0.0 %	0.0 %	0.0 %	2.7 %
STCO4	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
AMPS	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
CRJA2	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %

Secondary Obstructions	65032-BELCHER-D004		65032-BELCHER-D004		65032-BELCHER-D004		65032-BELCHER-D004		65032-BELCHER-D004	
	01/07/2005		02/20/2004		04/03/2002		02/10/2000		04/09/1999	
	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht
AAFF	0.0	0.0	1.3	1.0	0.0	0.0	1.3	11.0	0.0	0.0
AMPS	2.7	6.0	1.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0
ANGL2	1.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANHA	36.0	4.5	13.3	1.8	25.3	5.4	46.7	11.6	32.0	4.6
ANSC2	25.3	4.0	24.0	2.2	70.7	6.6	85.3	13.7	90.7	6.2
ARFI2	1.3	22.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	5.0
ARIST	0.0	0.0	6.7	1.0	4.0	3.7	4.0	4.3	17.3	3.9
ARPU9	14.7	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOCU	8.0	2.2	5.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
BOHI2	24.0	2.4	12.0	1.3	0.0	0.0	5.3	5.0	2.7	4.5
CEPA7	0.0	0.0	2.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0
CRJA2	0.0	0.0	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0
DICOC	2.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ERAB2	0.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
LECO	0.0	0.0	4.0	1.3	0.0	0.0	1.3	3.0	0.0	0.0
LEFE	0.0	0.0	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0
OPMA	1.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OPUNT	0.0	0.0	0.0	0.0	2.7	10.5	0.0	0.0	0.0	0.0
PARA2	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
QUHA3	53.3	5.9	70.7	6.4	54.7	6.1	29.3	9.5	0.0	0.0
SPCR	0.0	0.0	4.0	3.7	1.3	6.0	0.0	0.0	20.0	4.2
SPFL2	17.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPGI	0.0	0.0	0.0	0.0	1.3	5.0	0.0	0.0	0.0	0.0
STCO4	2.7	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YUGL	17.3	12.8	13.3	11.1	33.3	14.0	18.7	15.5	41.3	13.0

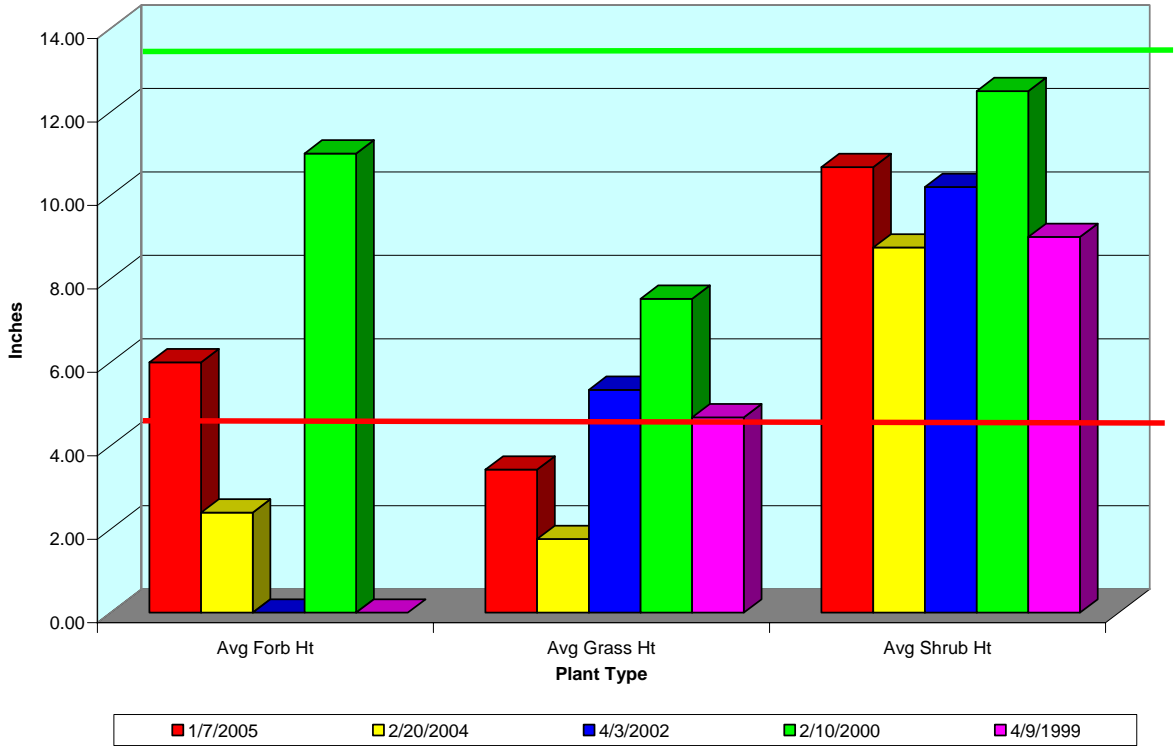
Average Visual Obstruction Height



Plant Composition



Plant Type Average Visual Obstruction Height



Robel Pole Summary over Time Report

Report Parameters

SITE NAME LIKE 65032-N. SAMPSON-D005

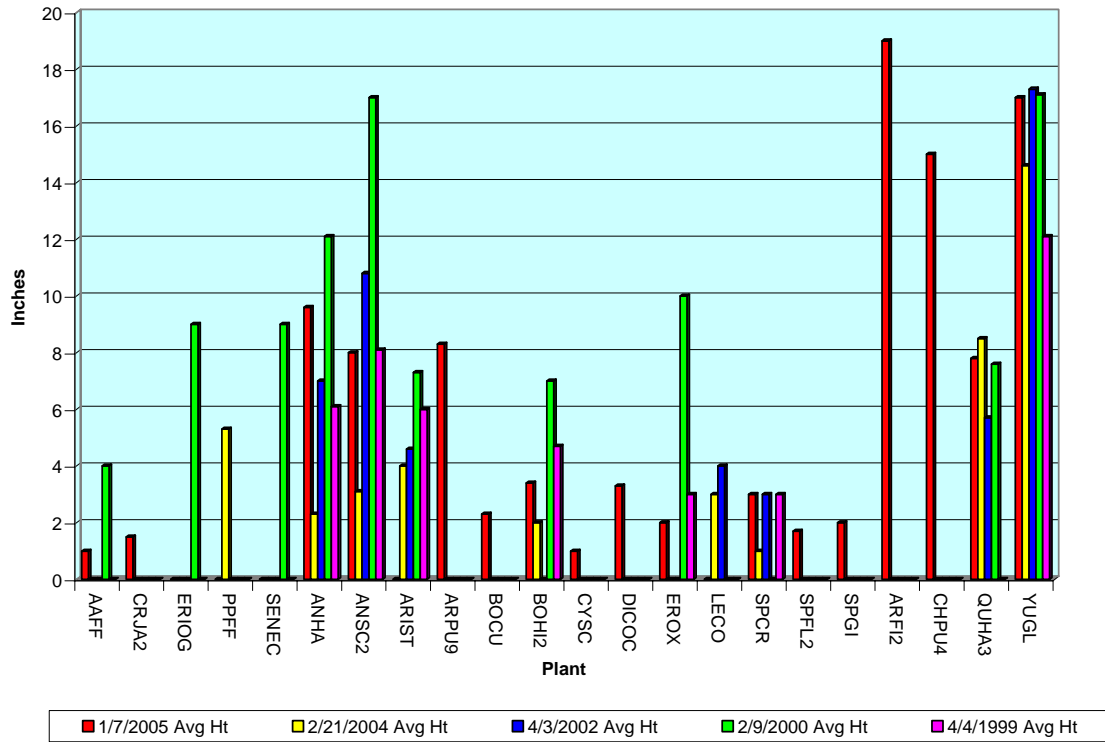
ON/AFTER 10/01/1998

ON/BEFORE 09/30/2005

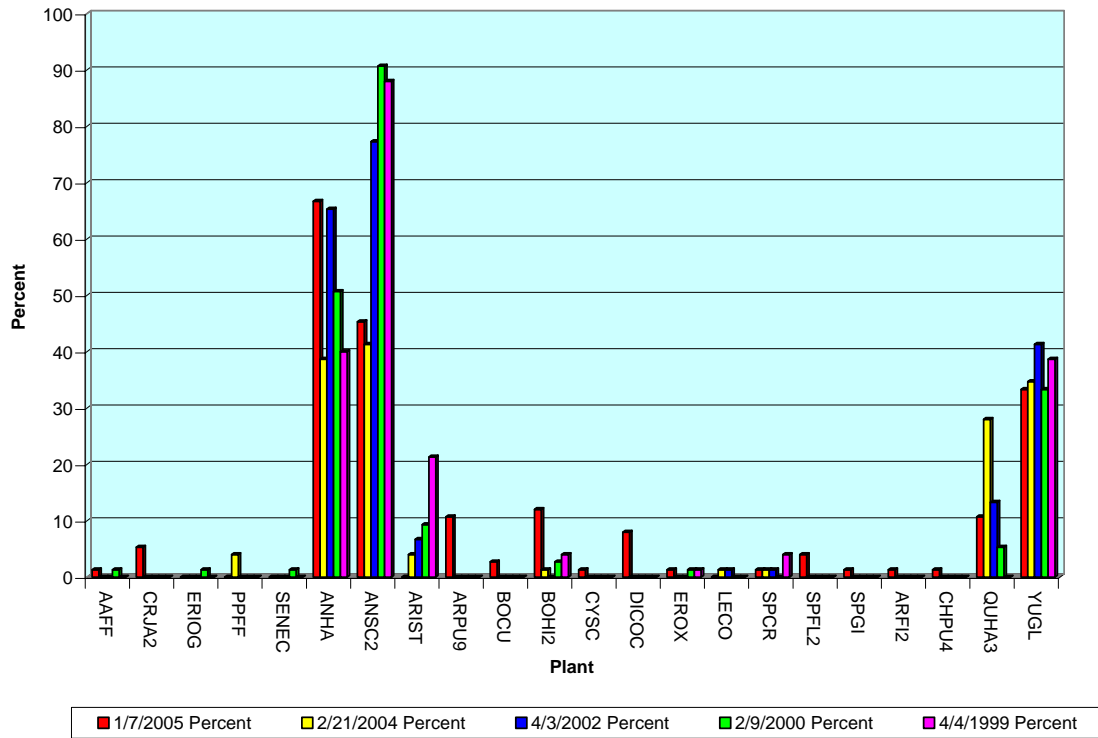
Primary Obstructions	65032-N. SAMPSON-D005	65032-N. SAMPSON-D005	65032-N. SAMPSON-D005	65032-N. SAMPSON-D005	65032-N. SAMPSON-D005
	01/07/2005	02/21/2004	04/03/2002	02/09/2000	04/04/1999
Flag Stations	13	1	10	37	0
	% Hits	% Hits	% Hits	% Hits	% Hits
BGROUND	24.0 %	42.7 %	60.0 %	30.7 %	40.0 %
LITTER	34.7 %	38.7 %	29.3 %	17.3 %	24.0 %
QUHA3	0.0 %	1.3 %	0.0 %	0.0 %	0.0 %
YUCCA	0.0 %	0.0 %	1.3 %	0.0 %	0.0 %
YUGL	2.7 %	5.3 %	0.0 %	0.0 %	0.0 %
ANHA	13.3 %	4.0 %	4.0 %	16.0 %	5.3 %
ANSC2	9.3 %	6.7 %	4.0 %	25.3 %	29.3 %
ARIST	0.0 %	0.0 %	1.3 %	8.0 %	0.0 %
ARPU9	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
BOHI2	9.3 %	0.0 %	0.0 %	2.7 %	1.3 %
DICOC	2.7 %	0.0 %	0.0 %	0.0 %	0.0 %
LECO	0.0 %	1.3 %	0.0 %	0.0 %	0.0 %
AMPS	2.7 %	0.0 %	0.0 %	0.0 %	0.0 %

Secondary Obstructions	65032-N. SAMPSON-D005		65032-N. SAMPSON-D005		65032-N. SAMPSON-D005		65032-N. SAMPSON-D005		65032-N. SAMPSON-D005	
	01/07/2005		02/21/2004		04/03/2002		02/09/2000		04/04/1999	
	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht
AAFF	1.3	1.0	0.0	0.0	0.0	0.0	1.3	4.0	0.0	0.0
ANHA	66.7	9.6	38.7	2.3	65.3	7.0	50.7	12.1	40.0	6.1
ANSC2	45.3	8.0	41.3	3.1	77.3	10.8	90.7	17.0	88.0	8.1
ARFI2	1.3	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARIST	0.0	0.0	4.0	4.0	6.7	4.6	9.3	7.3	21.3	6.0
ARPU9	10.7	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOCU	2.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOHI2	12.0	3.4	1.3	2.0	0.0	0.0	2.7	7.0	4.0	4.7
CHPU4	1.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CRJA2	5.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CYSC	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DICOC	8.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ERIOG	0.0	0.0	0.0	0.0	0.0	0.0	1.3	9.0	0.0	0.0
EROX	1.3	2.0	0.0	0.0	0.0	0.0	1.3	10.0	1.3	3.0
LECO	0.0	0.0	1.3	3.0	1.3	4.0	0.0	0.0	0.0	0.0
PPFF	0.0	0.0	4.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0
QUHA3	10.7	7.8	28.0	8.5	13.3	5.7	5.3	7.6	0.0	0.0
SENEC	0.0	0.0	0.0	0.0	0.0	0.0	1.3	9.0	0.0	0.0
SPCR	1.3	3.0	1.3	1.0	1.3	3.0	0.0	0.0	4.0	3.0
SPFL2	4.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPGI	1.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YUGL	33.3	17.0	34.7	14.6	41.3	17.3	33.3	17.1	38.7	12.1

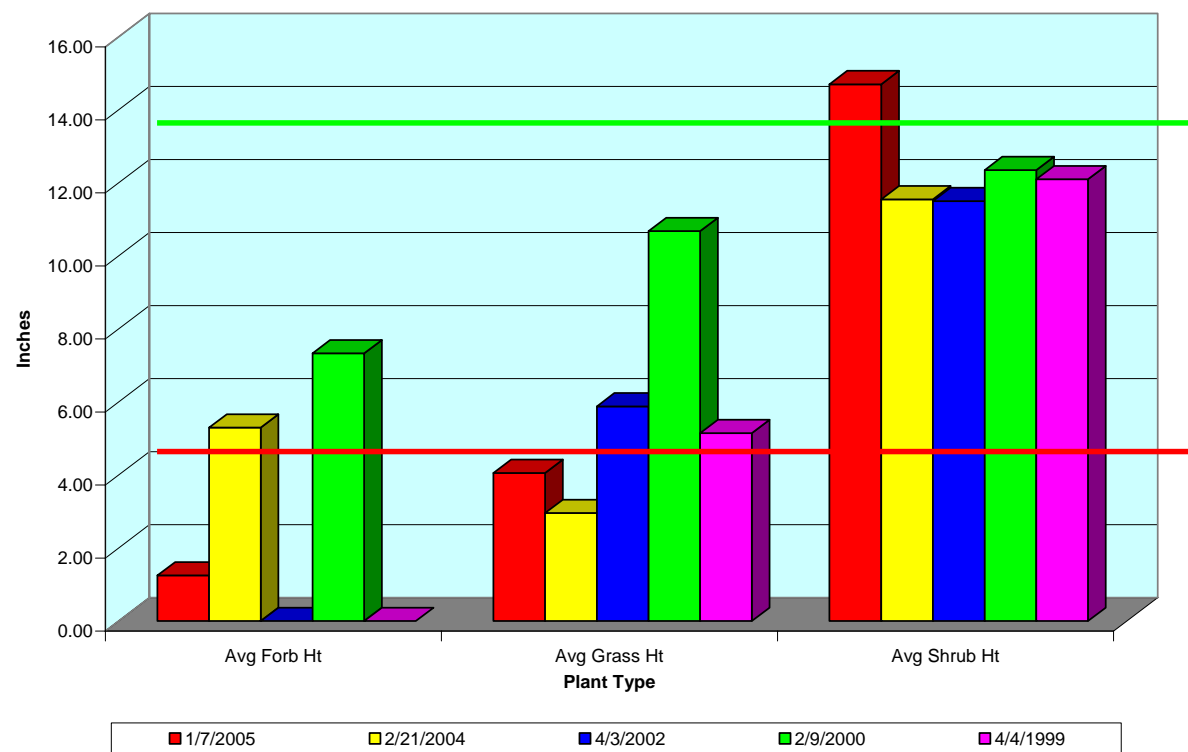
Average Visual Obstruction Height



Plant Composition



Plant Type Average Visual Obstruction Height



Robel Pole Summary over Time Report

Report Parameters

SITE NAME LIKE 65032-POLK-D003

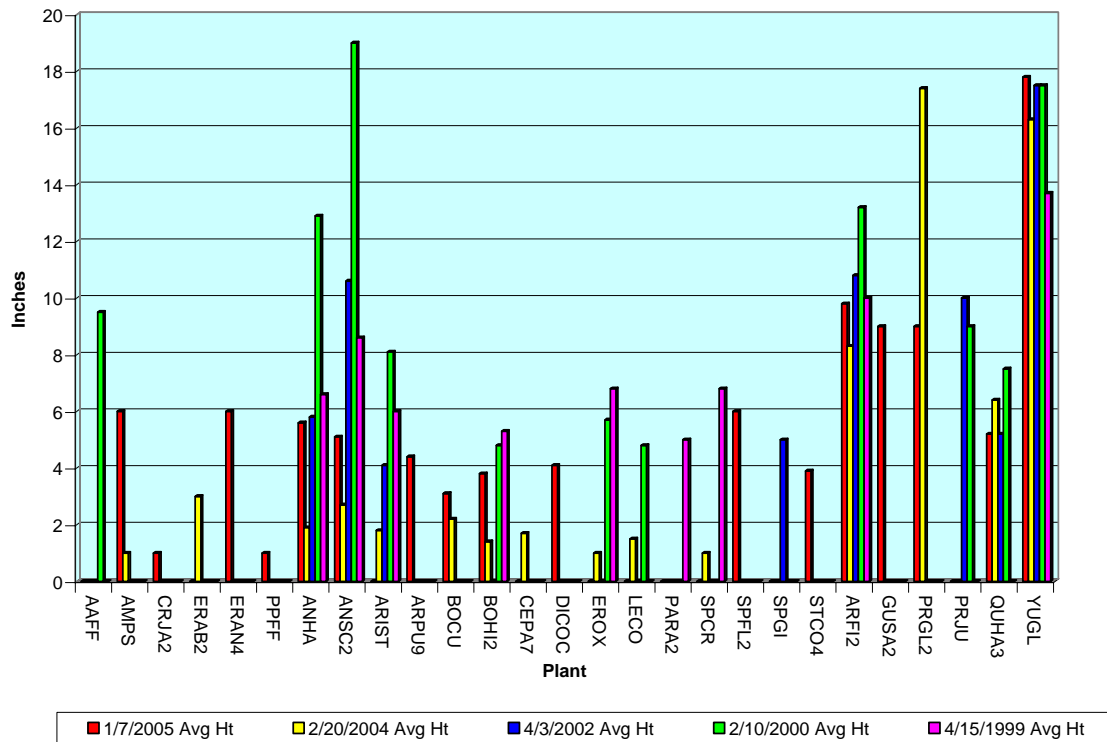
ON/AFTER 10/01/1998

ON/BEFORE 09/30/2005

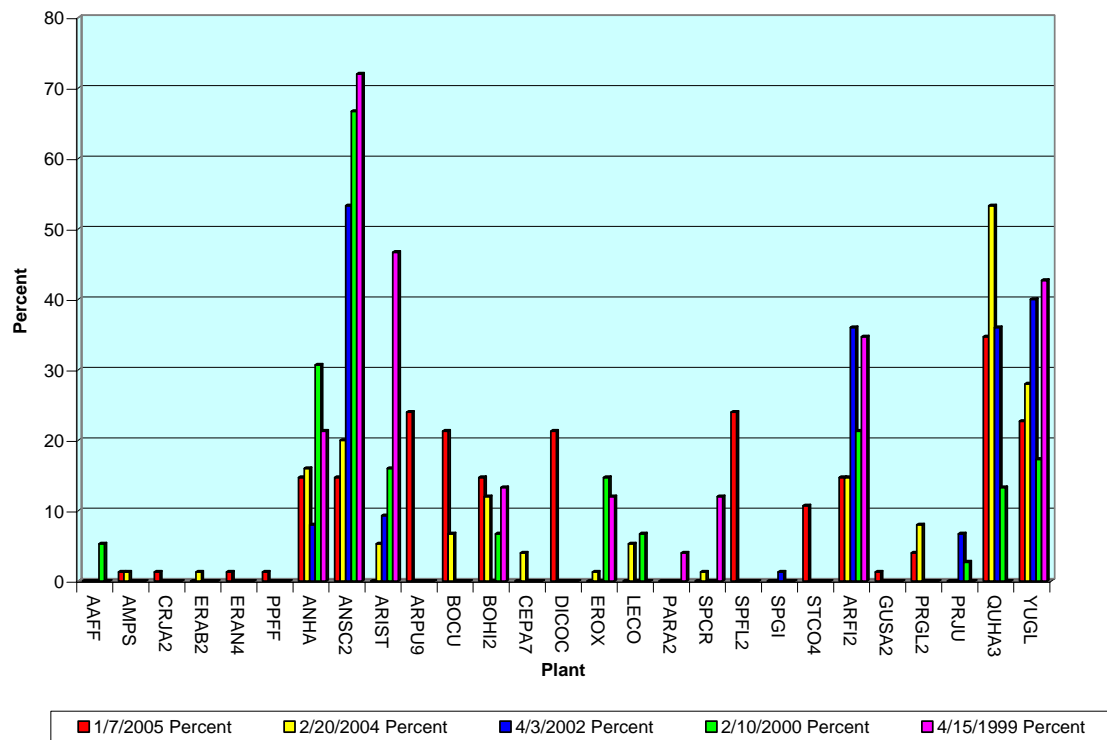
Primary Obstructions	65032-POLK-D003	65032-POLK-D003	65032-POLK-D003	65032-POLK-D003	65032-POLK-D003
	01/07/2005	02/20/2004	04/03/2002	02/10/2000	04/15/1999
Flag Stations	1	1	4	34	3
	% Hits	% Hits	% Hits	% Hits	% Hits
BGROUND	13.3 %	50.7 %	61.3 %	14.7 %	12.0 %
LITTER	40.0 %	40.0 %	33.3 %	46.7 %	54.7 %
ARFI2	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
QUHA3	5.3 %	1.3 %	0.0 %	1.3 %	0.0 %
YUGL	2.7 %	0.0 %	1.3 %	0.0 %	0.0 %
ANHA	1.3 %	1.3 %	0.0 %	6.7 %	2.7 %
ANSC2	1.3 %	1.3 %	1.3 %	17.3 %	12.0 %
ARIST	0.0 %	0.0 %	2.7 %	1.3 %	8.0 %
ARPU9	12.0 %	0.0 %	0.0 %	0.0 %	0.0 %
BOCU	10.7 %	1.3 %	0.0 %	0.0 %	0.0 %
BOHI2	1.3 %	1.3 %	0.0 %	5.3 %	1.3 %
DICOC	9.3 %	0.0 %	0.0 %	0.0 %	0.0 %
EROX	0.0 %	0.0 %	0.0 %	4.0 %	5.3 %
LECO	0.0 %	2.7 %	0.0 %	2.7 %	1.3 %
PARA2	0.0 %	0.0 %	0.0 %	0.0 %	2.7 %
STCO4	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %

Secondary Obstructions	65032-POLK-D003		65032-POLK-D003		65032-POLK-D003		65032-POLK-D003		65032-POLK-D003	
	01/07/2005		02/20/2004		04/03/2002		02/10/2000		04/15/1999	
	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht
AAFF	0.0	0.0	0.0	0.0	0.0	0.0	5.3	9.5	0.0	0.0
AMPS	1.3	6.0	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0
ANHA	14.7	5.6	16.0	1.9	8.0	5.8	30.7	12.9	21.3	6.6
ANSC2	14.7	5.1	20.0	2.7	53.3	10.6	66.7	19.0	72.0	8.6
ARFI2	14.7	9.8	14.7	8.3	36.0	10.8	21.3	13.2	34.7	10.0
ARIST	0.0	0.0	5.3	1.8	9.3	4.1	16.0	8.1	46.7	6.0
ARPU9	24.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOCU	21.3	3.1	6.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0
BOHI2	14.7	3.8	12.0	1.4	0.0	0.0	6.7	4.8	13.3	5.3
CEPA7	0.0	0.0	4.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
CRJA2	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DICOC	21.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ERAB2	0.0	0.0	1.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0
ERAN4	1.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EROX	0.0	0.0	1.3	1.0	0.0	0.0	14.7	5.7	12.0	6.8
GUSA2	1.3	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LECO	0.0	0.0	5.3	1.5	0.0	0.0	6.7	4.8	0.0	0.0
PARA2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0
PPFF	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRGL2	4.0	9.0	8.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0
PRJU	0.0	0.0	0.0	0.0	6.7	10.0	2.7	9.0	0.0	0.0
QUHA3	34.7	5.2	53.3	6.4	36.0	5.2	13.3	7.5	0.0	0.0
SPCR	0.0	0.0	1.3	1.0	0.0	0.0	0.0	0.0	12.0	6.8
SPFL2	24.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPGI	0.0	0.0	0.0	0.0	1.3	5.0	0.0	0.0	0.0	0.0
STCO4	10.7	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YUGL	22.7	17.8	28.0	16.3	40.0	17.5	17.3	17.5	42.7	13.7

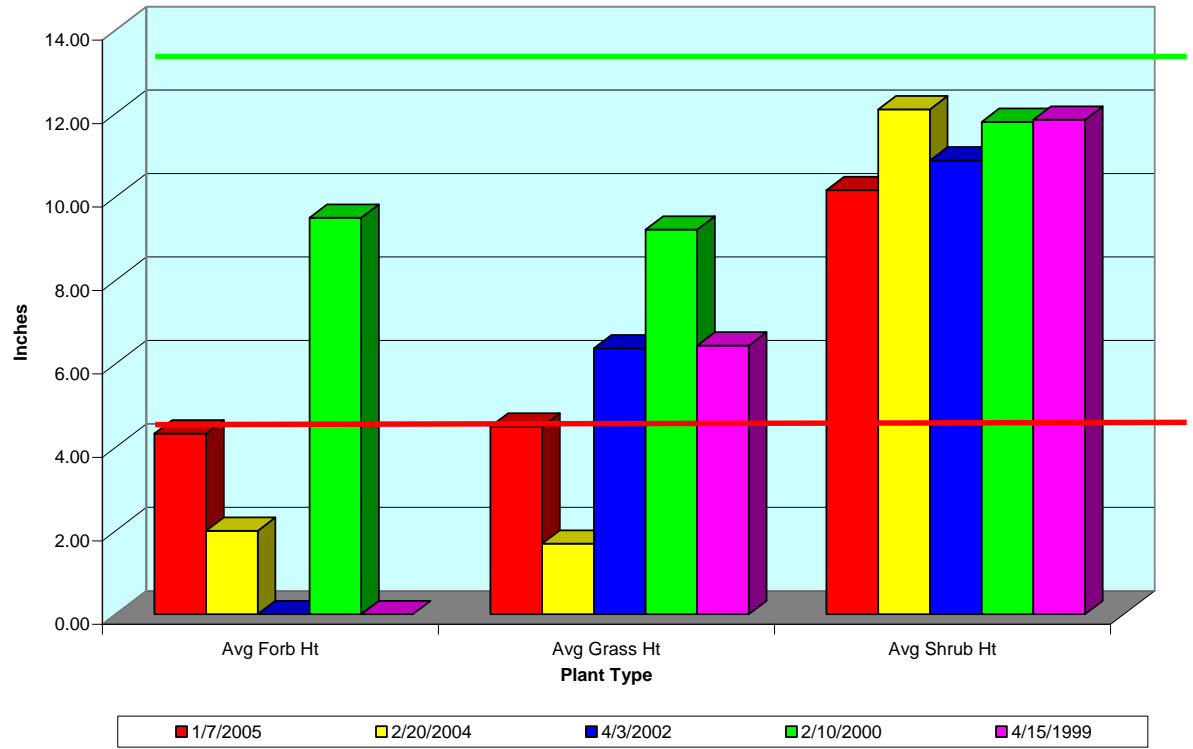
Average Visual Obstruction Height



Plant Composition



Plant Type Average Visual Obstruction Height



Robel Pole Summary over Time Report

Report Parameters

SITE NAME LIKE 65032-S. SAMPSON-D006

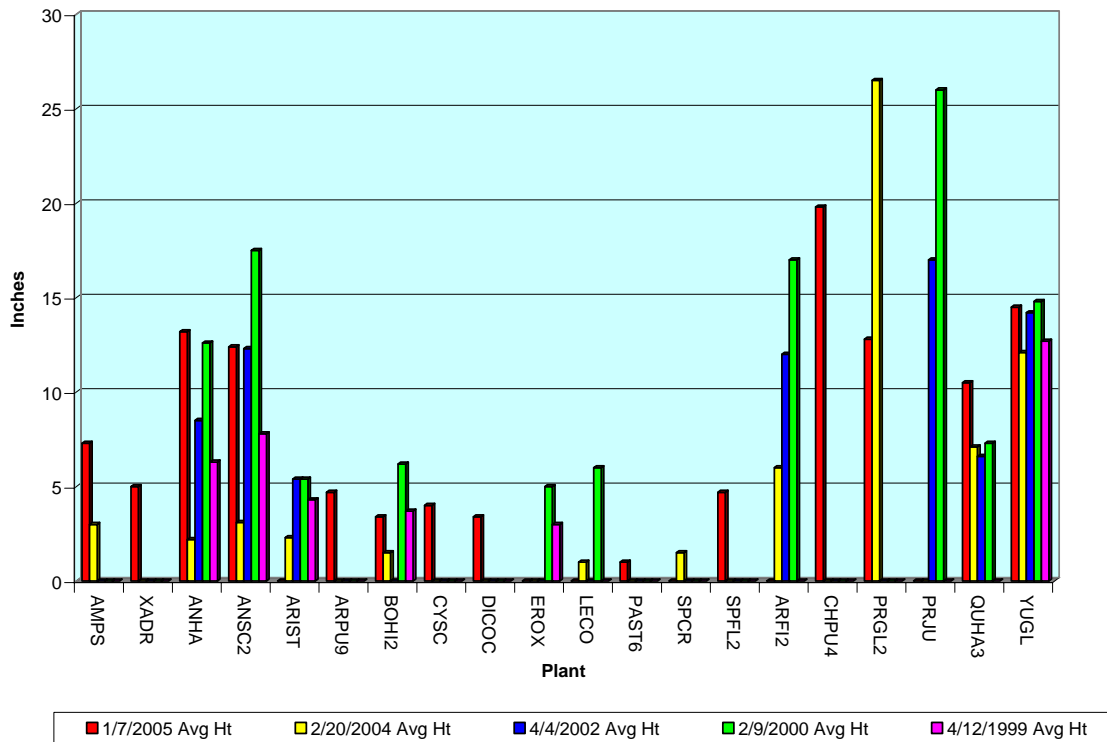
ON/AFTER 10/01/1998

ON/BEFORE 09/30/2005

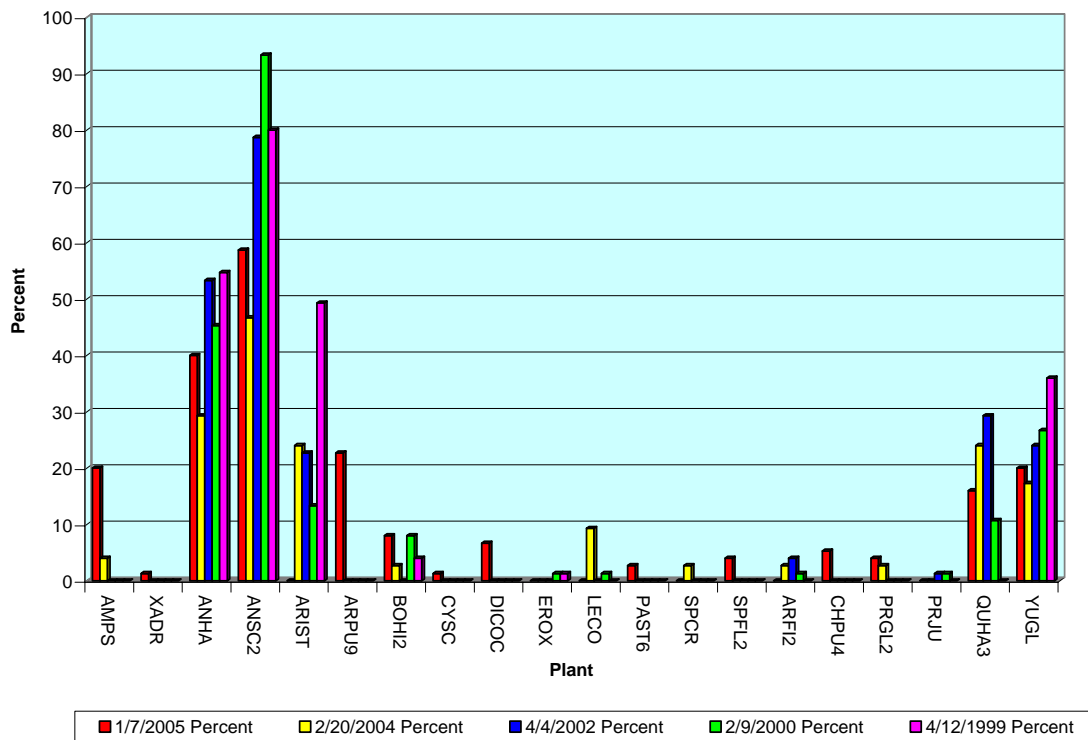
Primary Obstructions	65032-S. SAMPSON-D006	65032-S. SAMPSON-D006	65032-S. SAMPSON-D006	65032-S. SAMPSON-D006	65032-S. SAMPSON-D006
	01/07/2005	02/20/2004	04/04/2002	02/09/2000	04/12/1999
Flag Stations	13	0	9	46	4
	% Hits	% Hits	% Hits	% Hits	% Hits
BGROUND	28.0 %	44.0 %	50.7 %	32.0 %	57.3 %
LITTER	28.0 %	28.0 %	25.3 %	22.7 %	12.0 %
PRGL2	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
QUHA3	1.3 %	1.3 %	0.0 %	0.0 %	0.0 %
YUGL	1.3 %	1.3 %	0.0 %	1.3 %	1.3 %
ANHA	9.3 %	9.3 %	9.3 %	8.0 %	10.7 %
ANSC2	9.3 %	10.7 %	9.3 %	24.0 %	12.0 %
ARIST	0.0 %	0.0 %	5.3 %	2.7 %	1.3 %
ARPU9	6.7 %	0.0 %	0.0 %	0.0 %	0.0 %
BOHI2	4.0 %	1.3 %	0.0 %	6.7 %	5.3 %
DICOC	2.7 %	0.0 %	0.0 %	0.0 %	0.0 %
EROX	0.0 %	0.0 %	0.0 %	1.3 %	0.0 %
LECO	0.0 %	1.3 %	0.0 %	0.0 %	0.0 %
PAST6	1.3 %	0.0 %	0.0 %	1.3 %	0.0 %
SPCR	0.0 %	1.3 %	0.0 %	0.0 %	0.0 %
SPFL2	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %
AMPS	5.3 %	1.3 %	0.0 %	0.0 %	0.0 %

Secondary Obstructions	65032-S. SAMPSON-D006		65032-S. SAMPSON-D006		65032-S. SAMPSON-D006		65032-S. SAMPSON-D006		65032-S. SAMPSON-D006	
	01/07/2005		02/20/2004		04/04/2002		02/09/2000		04/12/1999	
	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht	Percent	Avg Ht
AMPS	20.0	7.3	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
ANHA	40.0	13.2	29.3	2.2	53.3	8.5	45.3	12.6	54.7	6.3
ANSC2	58.7	12.4	46.7	3.1	78.7	12.3	93.3	17.5	80.0	7.8
ARFI2	0.0	0.0	2.7	6.0	4.0	12.0	1.3	17.0	0.0	0.0
ARIST	0.0	0.0	24.0	2.3	22.7	5.4	13.3	5.4	49.3	4.3
ARPU9	22.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOHI2	8.0	3.4	2.7	1.5	0.0	0.0	8.0	6.2	4.0	3.7
CHPU4	5.3	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CYSC	1.3	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DICOC	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EROX	0.0	0.0	0.0	0.0	0.0	0.0	1.3	5.0	1.3	3.0
LECO	0.0	0.0	9.3	1.0	0.0	0.0	1.3	6.0	0.0	0.0
PAST6	2.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRGL2	4.0	12.8	2.7	26.5	0.0	0.0	0.0	0.0	0.0	0.0
PRJU	0.0	0.0	0.0	0.0	1.3	17.0	1.3	26.0	0.0	0.0
QUHA3	16.0	10.5	24.0	7.1	29.3	6.6	10.7	7.3	0.0	0.0
SPCR	0.0	0.0	2.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0
SPFL2	4.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XADR	1.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YUGL	20.0	14.5	17.3	12.1	24.0	14.2	26.7	14.8	36.0	12.7

Average Visual Obstruction Height



Plant Composition



Plant Type Average Visual Obstruction Height

